Towards a Knowledge Management Framework in Education Centric NGOs

Anamika K Chawhan,  
SJM School of Management, IIT Bombay.  
E-mail: anamikakchawhan@som.iitb.ac.in

Rajendra M Sonar,  
SJM School of Management, IIT Bombay.  
E-mail: rm_sonar@iitb.ac.in

Abstract

Collaboration of KM and NGOs helps the systems to manage the creation, sharing and reusing the information: within the NGOs, among the different NGOs that work together and on the bigger scale; the NGOs and Society as a whole. This collaboration helps the donors and beneficiaries both. KM helps in addressing the problems such as fundamental objectives, entities, activities, work-flow process. Responsible NGOs always promote sharing the information and knowledge from local to global network. Through this paper, it is concluded that through KM many functional complexities of NGOs can be addressed. This paper attempts to address the critical and fundamental relationships between the NGO’s and KM. The main motive of this paper is developing a broad based theory in the form of holistic framework. Four NGOs who are greatly active in the education for under-privileged kids were studied. Their case-study was developed to support the grounded theory and design SPPIT (Service, Philosophy, Process and IT) framework which supports the inter-relationship between KM and NGOs.

Key Words: Knowledge Management, NGOs, KM Framework, Grounded Theory, Coding, Infrastructure.
1. Introduction

Knowledge is a fundamental factor, whose successful application helps organizations deliver creative products and services. Most organizations already have a vast reservoir of knowledge in a wide variety of organizational processes, best-practices, know-how, customer trust, culture and norms. However, this knowledge is diffused, and mostly unrecognized. Knowledge Management (KM) is a tool which helps in identifying, organizing, storing, sharing and supervising the knowledge related activities.

KM practices helps in generating values for the organisation, achieving their capabilities and competences. KM also helps in understanding content, recording data, interpreting information and extracting knowledge to build relationship between context and its patterns. KM infrastructure is useful to retrieve content through browser interface, search engine, extraction tools, manipulation tools, assembly tools.

Organisation’s knowledge is the collection of expertise, experience and information that individuals and teams gains and applies while implementing a task. This knowledge is produced and stored by individual minds, or implicitly encoded and documented in organizational practices, services and structures.

Non-Governmental Organizations (NGOs) involved in Philanthropic Service and Social Development face a difficulty with regards to knowledge creation: expertise knowledge vis a vis best practices; involvement of individual, group and organisation, regardless of their particular skills.

According to the summary sheet on Non-Profit Organizations published by the Statistics Times, Services sector is the largest sector of India. Gross Value Added (GVA) at current prices for Services sector is estimated at 119.76 lakh crore INR in 2017-18. In Services sector, India world rank is 11 and GDP is $1185.79 billion. And, Community, social services are estimated at Rs.1,541,351 crore which comes to 13.34%.

2. Literature Review

Greenaway & Yuong 2010 suggests that NGOs are typically stretched between financial and human resources. They compete with each other for revenues, board members, clients, contracts, grants, donations, gifts and prestige, political power, staff and volunteers. According to (Vuong, 2010), NGOs are being challenged to become more innovative and entrepreneurial in order to maintain a balance between carrying out their mission and maintaining financial health. Their knowledge is a key asset in addressing these challenges.

The effective use of the organisation’s knowledge assets and limited resources supports vital operational and innovative activities in response to the demands of a fast changing environment (Kipley, Lewis & Helm 2008; Sandhawalia & Dulcher 2011). KM has been described as the methodology, tools and techniques required to gather, integrate and
disseminate knowledge within an organisation (Baker et al. 1997; Davenport & Prusak 2012; Gold, Malhotra & Segars 2001).

Indian NGOs have limited organisational resources and are struggling to meet the needs of their clients. Consequently NGOs should ensure that their operating processes are geared towards maximising the value of their limited resources by continually reshaping their strategies, function and activities in order to achieve their mission objectives. Knowledge is a key asset that determines an organisation’s ability to achieve a sustainable competitive advantage, making it important for organisations to preserve and expand their core competencies by tapping into the knowledge base of skills and experiences held by their people, finding ways to access existing knowledge and create new knowledge (Bollinger & Smith 2001; Styen & Kahn 2008). KM therefore has a major role in assisting NGOs to achieve performance excellence (Gill 2009; Kong 2007a, 2008; Lettieri, Borga & Savoldelli 2004).

Figure 1: Inter-Relation of KM Process and NGO's Work Process

2.1 Importance of Knowledge Management in NGOs

Several issues have influenced organisations to recognise the significance of knowledge management. The emergence of the knowledge economy and globalisation are often cited as the prominent causes for this growing significance (Drucker, 2011; Prusak, 2012; Rumizen, 2002). Peter Drucker first described the characteristics of the knowledge economy in his renowned works, “The Landmarks of Tomorrow” and “The Age of Discontinuity” (Drucker, 1959; Drucker, 1969). He predicted that the major changes in society would be brought about by knowledge workers and the way people use information in their work. He says “to remain competitive, may be even to survive, businesses will have to convert themselves into organisations of knowledgeable specialists” (Drucker, 2011). These knowledgeable specialists, who are
characterised by the level of their formal education, will become the largest working group. Thus, education and development, and to some degree training, will be the central concern of a knowledge society. Drucker (2011) also suggests that knowledge economy and knowledge work have the following three important characteristics.

- Borderlessness, because knowledge travels even more effortlessly than money.
- Upward mobility, available to everyone through easily acquired formal education.
- The potential for failure as well as success. Anyone can acquire the “means of projection”, i.e., the knowledge required for the job, but not everyone can win.

The importance of knowledge management also stems out from the critical challenges and opportunities faced by the present-day organisations. The high levels of market competition, shrinking project cycles, constant need for innovation, cost cutting and layoffs have created a complex set of challenges for the present-day organisations. In this business context, knowledge has been emphasised as a crucial organisational resource to achieve sustainable competitive advantage. This emphasis resulted in imparting strategic status to knowledge management and triggered the commencement of formal KM programs in many organisations (Davenport, 2010; Hertog & Huizenga, 2010; Nonaka & Takeuchi, 1995).

3. Methodology

Based on the evaluative discussions, the interpretive paradigm has been determined as the most appropriate philosophical approach to achieve the research goal of this study. The paradigm choice encompassed the adoption of the relativist ontology, subjectivist epistemology and qualitative methodologies.

Denzin and Lincoln (2000) indicate that the next logical step in the research process is to adopt a particular qualitative methodology or research strategy for the study. Several social scientists suggest that a research strategy put paradigms of interpretation into motion and connect the research to specific methods of collecting and analysing empirical materials (Denzin and Lincoln, 2005; Myers, 1997; Psathas, 1995; Silverman, 2005; (Yin, 2003).

3.1 Grounded Theory

In their pioneering work, Barney Glaser and Anselm Strauss (1965, 1967 & 1968) first articulated and elaborated the grounded theory methodology. In contrast to the priori theoretical orientation in sociology, they held that theories should be “grounded” in data from the field, especially in actions, interactions, and social processes of the people. In grounded theory, the researcher typically conducts 10-12 interviews based on several visits “to the field” to collect interview data to saturate the categories. Here a category represents a unit of information composed of events, happenings and instances. The researcher begins analysis of data, while he or she collects the data, to form a theory (Strauss & Corbin, 1990).
The data analysis approaches of grounded theory can provide some valuable inputs (Hussey & Hussey, 1997). Therefore this strategy would be used at the data analysis stage of this study.

3.2. Case Study Method

Some social scientists consider “the case” as an object of study (Stake, 1995) while others consider it as an absolute research methodology (Merriam, 1998; Stoecker, 1991; (Yin, 2003). Here, we treat case study as a research methodology to explore the possibility of its adoption to this research context. Yin (2002) defines case study methodology as “an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”.

The perplexity in the relationship between various organisational factors and knowledge management practice, illustrates the appropriateness of case study enquiry in our subject domain. The case study methodology has been increasingly used as a research tool in social sciences and is often advocated as a suitable method for research in organisational and management studies (Hamel, 1993; Perry & Kraemer, 1986; (Yin, 2003). As the research goal (G) involves studying several organisational dimensions and management strategies, the case study strategy can serve as a valuable alternative. Moreover, it is a flexible method in terms of the underlying philosophical assumptions and can be used in both the positivist and interpretive research paradigms (Benbasat, 1987; Walsham, 1993 & 1995; Yin, 2003). The methodology also supports the explorative and descriptive nature of the research questions derived for this study. These characteristics of case study approach indicate that it can serve as a valuable alternative for this study.

Therefore, the case study methodology needs to be explored further and deeper to evaluate its suitability to this research context. (Yin, 2003) and others (Alavi & Carlson, 1992; Benbasat, 1987; Merriam, 1998; Stake, 1995; Walsham, 1993 & 1995) enumerate several characteristics of case study strategy which indicate its appropriateness to our research context.

3.3. Research Design

The case organisations for this empirical study were selected through a purposive sampling. The intention was to achieve a fine diversity in the responses, and to qualify the collected data for generalisation of the observed phenomena. In case study research, several authors suggest purposive sampling to build variety and intensity (Stake, 2000); (Miles, 1994); (Yin, 2003).

In purposive sampling, the researchers need to select the units of research, based on the characteristics or attributes that are important to the evaluation (Smith, 1983; Patton, 1990; (Yin, 2003). A mixed sample of four NGOs are selected for this study, on the basis of several characteristics such as the size, service type, operational distribution, knowledge intensity, and maturity of the KM practices.
3.4. Data Collection

Several social scientists suggest that employing rigorous data collection procedures is one of the characteristics of a good qualitative study (Creswell, 1998; Silverman, 2005; Yin, 2003).

The interviews are the core method of data collection and would be based on a semi-structured interview instrument developed through a literature review. Silverman (2005) notes that interview data display realities, which are neither biased nor accurate, but simply ‘real’. Kvale (1996) also advocates the interview method to seek and describe the meanings of central themes, in the life world of the subjects such as organisational culture. The questionnaire is designed to allow respondents to drive and describe the content within the boundaries of the formulated research questions.

The empirical materials collected during each case study would be coded and reviewed frequently to improve the data collection process and its products. Crawford et al. (2004) emphasise that the data collection and analysis should be an interwoven process, prompting the sampling of new data. Silverman (2005) also notes that the “data analysis should not only happen after all the data has been safely gathered”. He suggests transcribing the interviews even if a researcher has only one interview record. Charmaz (1995) supports this notion and proposes that data should be studied as it emerges.

3.5. Data Analysis

Crawford et al (2004) note that the grounded theory and content analysis are the two main approaches for analysing the qualitative data. However, several authors suggest that the content analysis approach incline towards the positivist paradigm because of its emphasis on the priori theory building and hypothesis testing nature (Flick, 1998; Locke, 2001). This paper is more of explorative nature and does not have a hypothetical theory to employ the content analysis approach. Hussey and Hussey (1997) note that the grounded theory approach is becoming increasingly popular for analysing qualitative data in business research. Therefore the grounded theory approach can be considered as a valuable alternative for the data analysis phase of this study.

4. Findings, Analysis, and Discussion

The open coding and axial coding phases, of grounded theory analysis, have resulted in identifying a total of 25 factors influencing KM in education centric NGOs. These KM factors, various concepts, characteristic properties, and strategies are described in detail. The concepts represent the base elements or building blocks for each factor. The properties describe how each factor influences the knowledge management function in NGOs. The strategies for each factor represent the initiatives, techniques, measures, activities, and tactics that are being followed by the organisations to manage the enterprise knowledge effectively.
### Core categories (from selective coding phase) | Constituent KM factors (from open and axial coding phase)
---|---
**Service** | Knowledge dispersion (F1)  
Employee turnover (F2)  
Market environment (F3)  
Virtual working (F4)  
Innovation (F5)  
Value addition (F6)  
**Philosophy** | Leadership (F7)  
Knowledge accessibility (F8)  
Employee learning (F10)  
Reward systems (F11)  
Time allocation (F12)  
Change management (F13)  
Evangelisation (F14)  
Communities of Practice (F15)  
Events (F16)  
**Process** | KM strategy and alignment (F17)  
Organisational structure (F18)  
Piloting (F19)  
Recruitment (F9)  
Knowledge creation and quality control (F20)  
Content management (F21)  
Knowledge sharing and reuse (F22)  
Business processes (F23)  
**IT** | Technological infrastructure (F24)  
Physical infrastructure (F25)  

The 25 KM factors identified during the open and axial coding phases are grouped into core categories based on their similarities. These core categories or central categories are developed by looking at the interrelationships between all the KM factors. They are created using the selective coding techniques of the grounded theory approach (Strauss and Corbin, 1998). They represent precise and distinct organisational dimensions shaping the knowledge management in NGOs. The integration of the 25 KM factors has resulted in the development of four core categories; 1) Service 2) Philosophy 3) Process and 4) IT.

**Figure 2: A Thematic Representation of the Core KM Categories or Organizational Dimensions and their Interrelationships**
5. A Meta-Level Km Framework (Sppit Matrix)

A Meta-level framework is developed for practicing knowledge management in NGOs. The framework is based on the empirical findings of this research study. This KM framework is termed as the ‘SPPIT Matrix’ to resonate with the four core organisational dimensions explored in this research study: Service, Philosophy, Process and IT (SPPIT). The proven principles in the current KM literature are also integrated in this framework, based on the critical discussions made in the previous sections for each of the KM factors (F1-F25). The organisations need to consider the SPPIT matrix as a meta-level KM template, and customise it according to their process. Each of these phases can change their positions depending on the specific KM requirements and organisational circumstances. However, the KM factors (F1-F25) described before in this chapter, can assist in customising the SPPIT matrix accordingly. This SPPIT Matrix deliberately avoids meticulous details or descriptions for each phase. It aims to provide a swift and comprehensive view of KM, and avoids repetition of the descriptions that have already been made for various factors involved. However, precise cues are built into the framework in the form of various factors (F1 – F25). These cues provide directions to the detailed KM strategies, initiatives, and measures pertaining to each of the KM factors.

Figure 3: SPPIT (Service, Philosophy, Process And IT) Framework

6. Limitations and Future Work

In today’s world every organisation is expected to save time by not “reinventing the wheel” or looking for old knowledge which they know already (Sieloff, 1999). Also, Ragab and Arisha have concluded that to attain competitive advantage, knowledge is a valuable organisational resource from a strategic perspective (James, 2004) (Erden, 2008).

Hence, this paper is an attempt to identify factors (F1 to F25) which can be considered explicitly by the NGOs.
Perhaps, the major limitation of this research is associated with the sample selection strategy. For further research, firstly, the findings of this study can be applied and tested on NGOs through a collaborative research project. Secondly, the findings can be expanded and enriched by conducting additional case studies in various other services segments. Thirdly, the generalisability of the identified factors, derived conclusions, and the SPPTIT matrix can be improved through a consecutive research survey.

References


