The Impact of System Thinking on Learning Organization Practice in Non-Profit Management

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Abstract

In India, NGOs are a driving force behind social progress and transformation. When governments are unable to meet the needs and demands of the community, they step in to help. Although "learning organisation" is a popular term in business, its application in the nonprofit sector is still unknown. This quantitative study employs a survey research design to investigate the applicability and degree of system thinking implementation in non-governmental organisations (NGOs) that are involved in rehabilitation services in Kerala. System thinking is one of the characteristics of learning organizations. This survey includes 300 respondents, including professional staff members and managers of 45 non-profit organisations. The study's findings indicate that the degree of system thinking application varies significantly amongst Kerala's non-governmental organisations. A good continuous learning environment in the nonprofit sector can be ensured by practicing the essence of learning organizations, conceptualizing their purpose, and professionally executing all of their dimensions. It is imperative to view NGOs as learning organizations since they provide invaluable services to both the country and humanity. The study's conclusions highlight the need for system thinking to successfully apply learning organisational dimensions in the NGO sector to transform the organisation and achieve organisational development and innovation while maintaining a high degree of objective truth.

Keywords: Learning Organization, Non-Profit Sector, Organizational Development, Psycho Social Rehabilitation, System Thinking.

Introduction

The main purpose of this article is to study and evaluate the level of implementation of system thinking, one of the dimensions of learning organisational practices, among the rehabilitation NGOs in Kerala. An organisation that actively integrates the experience and knowledge of its partners and members into the development of practices, policies, procedures, and systems in order to continuously improve its capacity to set and meet objectives, appease stakeholders, advance its practice, value and develop its workforce, and fulfil its constituency's mission is known as a learning non-governmental organisation (1).

The notion of a learning organisation: Learning organisations can offer work settings that are conducive to creative thinking and embrace the idea that each one of us possesses the answers to persistent job-related challenges. They are more than just the newest or most trendy management trend. To obtain those skills, including critical and creative thinking, effective communication, and collaborative abilities, one only has to tap into the reservoir of information (2).

A learning organisation is one that aspires to shape its own destiny, views learning as a continuous and creative process for its members, and changes, evolves, and transforms in response to the needs and goals of those both inside and outside of it (3).

We are liberated by learning organisations. Employees can now actively participate in a paradigm shift from the traditional authoritarian workplace philosophy to one where the hierarchy is broken down and human potential is heralded. This means that workers are no longer just passive players in the equation but rather can express ideas and challenge themselves to contribute to an improved work environment. People can "create the results they truly desire" and learn from one another

for the benefit of the group in an atmosphere that is supported by learning organisations (4, 5). Organisational learning is far more complicated than individual learning, incorporating interplay between social and cultural systems inside the organisation (6, 7). Determining what constitutes a learning organisation has been attempted several times. However, despite the fact that learning organisations are frequently discussed, research literature has not produced a standard or consistent conceptual description. Learning organization can be conceptualised as an entity that fosters a culture of continuous learning and knowledge creation at all levels. It recognizes the importance of adapting to change, acquiring new knowledge, and leveraging insights to improve performance and achieve strategic objectives. Systems thinking plays a pivotal role which emphasizes understanding interconnections, taking a holistic perspective, identifying patterns, and using tools to analyse complex systems. Systems thinking, along with other components like personal mastery, mental models, shared vision, and team learning, contributes to creating effective learning organizations.

Learning organisations in the NGO sector: It cannot be refuted that the NGOs have been facing significant challenges from their donors and other organisations in connection with their budgetary requirements. In addition to that, competition between public and private sector NGOs has notably increased due to shrinking aid budgets. This in turn leads to a shift in the focus of NGOs from direct implementation of projects and initiatives to advocacy, policy influencing, civil society strengthening, and partnership-working.

On the other hand, donors are increasingly demanding evidence of the impact and learning return on their investment. The Logical Framework Approach (LFA) can be considered one of the effective constraints of learning with significant evidence (8), particularly at the project and programme levels.

As NGOs are forced to demonstrate the results, publicising or even sharing lessons learned from programme experience has become more common. The denial of being open about learning may happen when a programme has not achieved the results as per the funding guidelines or the demands.

Why is learning important in NGOs? It cannot be admitted that by gathering, storing, or making the knowledge accessible, someone has acquired the knowledge and learned. This always overlooks the fact that knowledge is information that individuals have reflected on, understood, and are able to use. In the same way, wisdom cannot be gained simply because we have expanded our knowledge. It requires knowledge, but it also requires the ability to think and act according to experience, understanding, common sense, and insight (8). Learning in NGOs is primarily focused on the following topics: 1) the nature of development itself; 2) enhancing organisational effectiveness; 3) building organisational capacity; 4) the necessity for NGOs to maximise the use of their limited resources; 5) fortifying partnerships; 6) the distinction between planning, monitoring, and evaluation; and 7) the role that learning can play in promoting organisational health.

System thinking and learning organization: It is the key element that holds the other four disciplines together in the learning organization. It is the ability to see the organisation as a whole rather than as an independent. There must be a change from independence to dependence, from blaming external factors for the problems to realising the causes of the problems. Here, the employees are educated and taught to see the interconnections and identify the variable that causes the problem. It requires looking beyond normal cause-and-effect relationships and instead seeing the whole system and the connections between variables. Each variable here is both a cause and an effect. System thinking is necessary when the cause-and-effect relationships are unclear and the long-term effects of interventions are not evident. In such cases, planning and forecasting are not effective, and that can only address the system partially.

Cause-and-effect relationships in systems are often identified as two based on time and space. Sometimes the intervention may take a long time to become effective. Due to this, people with poor understanding and who approach the problem non-systematically may pretend that the intervention is

not working, and they will search for another intervention. In such cases, both the effort of the members and the problem persist for a long time, and the effectiveness of the intervention lessens even though the intervention applied is right. Looking forward to too many solutions and the results can deviate from the ultimate goal of the interventions and result in new problems. Hence, some of the problems that we are experiencing may have developed as a result of the non-systematic solutions we tried to apply at a previous point in time. What might have happened? Instead of being solved, the problem has just shifted from one part of the system to another. Therefore, there are chances that the problems will remain undetected.

In most cases, people are not aware of their role or ability to create or contribute to the problems they're dealing with. They may look for the cause of the problem by blaming and complaining about others without knowing that they are also a part of the system that causes the problem. Application of non-systemic solutions to a problem may result in short-term relief, but at times this may create long-term problems. In such cases, more solutions need to be found to tackle the newly identified issues; this would inhibit the system's ability to identify long-term solutions, which leads to an unprecedented failure. In order to understand and address the issue, one needs to know about the structure of the system and the interrelationships between different elements that affect behaviour over time. Instead of short-term interventions, organisations need to understand long-term trends and their impacts.

Senge believes that an organisation needs to practice all five disciplines to become a learning organization. He says that though system thinking is considered a fundamental among other disciplines, it alone cannot create a learning organisation.

In this study, the theoretical foundation for a better understanding of the concept of the learning organization is defined by several theories including Peter Senge's learning organization theory systems theory, organizational learning theory, and the general theory of action

Statement of purpose and research questions: The overall purpose of this cross-sectional survey research is to develop an understanding of how and to what extent NGO managers and professionals in rehabilitation NGOs in Kerala conceptualise system thinking as one of the dimensions of learning organisation practice in order to manage their daily operations. To fulfil this purpose, the following research questions are addressed:

● What is system thinking according to a non-governmental organisation?
● To what extent is system thinking practiced among rehabilitation NGO managers and professional staff?
● How is the implementation of system thinking varied in different rehabilitation NGOs?
● What are the benefits of system thinking to employees and organisations of rehabilitation NGOs?
● How does system thinking help a rehabilitation NGO become a learning organisation?

Methodology
Objective
The main objective of this study was to describe the extent of implementation of system thinking of learning organization practices and the level of understanding learning organization practices among NGO managers and other professionals.

Research Design
Cross sectional research methodology approach that can yield numerical descriptive data and analysis was used. By examining a sample of the population, a survey design addresses the need to give a quantifiable numerical description of the attitudes, trends, or opinions of that population. The data collected at one point in time.

Sampling
This study used multistage sampling across three zones in the state of Kerala. The sampling frame consisted of 45 rehabilitation NGOs across the state. From each organization, the survey selected managers, professional staff using random sampling. This study used multistage sampling Stage1: Divide the state wide psycho social rehab NGO's into three zones like North, Central and South. Stage 2: Select 44 NGOs from each zone through random sampling. Stage 3: Select 10 respondents from NGO leaders, professionals and volunteers through random sampling.

Inclusion Criteria

- ●The NGO should be registered under Travancore Cochin Literary, Scientific and Charitable Socities Regulation Act 1995 or Society Registration Act
- ●The NGO should be a psychosocial rehabilitation center recognized by Orphanage Control Board, Govt. of Kerala
- ● An operating age of at least seven years as on 31 March 2020
- ●The NGO should have 12A and 80G and FCRA Registration
- ●Employing at least five professional staffs, need to have volunteers

Exclusion Criteria

- ●Orphanages, foundling homes and other religious and charitable organizations are not included in this study

Study Instrument

The survey instrument used in this study was system thinking questionnaire. It is five-point scales with 5 items. The questionnaire was designed to answer the research questions and intended to measure system thinking related to Learning Organization practices in NGO sector. The statement of learning organization practices adopted for this study were compiled based on the guidelines observed in the academic literature and Learning Organization questionnaire.

Pre-test was conducted to check the reliability and validity of the tools from 22/01/2020 to 30/01/2020. There were nine Psycho Social Rehabilitation NGOs' involved and a total of 75 respondents participated in the survey. Internal consistency values show the value of Cronbach's alpha for each of the scales used in this study and shows that all the scales have values above .7, indicating good internal consistency and high reliability. This study uses content validity as the measure of validity. Each construct in this study is operationalized and measured based on the definitions and explanations offered in previous studies or models of Learning in NGO management and NGO Performance. Also, before the questionnaire issuance, every item is examined in terms of the relevance of the questionnaire content and study purpose by two academics with related academic backgrounds and two managers of NGOs. The pre-testing of the instrument also helped to ensure the content validity.

Results

Personal Profile of the Respondent

The analysis in this part is based on the data collected from employees of the NGOs working in the state of Kerala. The personal profile of Respondents was categorized based on Age, Gender, Education, experience, and income were given in Table 1. Table 2 illustrates the sample frame of psycho social rehabilitation NGO employees in this research.

System Thinking

The analysis based on system thinking reveals that that there is significant difference in the implementation of learning organizational practice in relation to System thinking. The present analysis compare system thinking with the status of learning organizational practices implemented in selected rehabilitation NGO centers. System thinking which is the dependent variable and the status of implementation which is an independent variable. Mean and SD score of Organizational challenges and beneficiaries is 3.13 and 1.98 respectively. This is presented in Table 3.

The result of analysis proved with the help of One-Way ANOVA. The result of analysis proved that null hypothesis is rejected. All the attributes in the system thinking is significant. The result of all the attributes included in the system thinking reveals that P value is less than 0.05, the assumed level of significant. The null hypothesis is rejected that Learning Organizational practices in relation to system thinking have significant difference in selected rehabilitation NGO centers in Kerala. Therefore, result of analysis proved that there is significant difference in the implementation of system thinking in different NGO rehabilitation centers in the state of Kerala. Figure 1 illustrates the measured model for System thinking.

Table 1: Personal profile of the respondents

Variables		Designation		Total
		NGO Managers	Professional Staff	
Age	20 to 30	14 (17.5)	89 (40.5)	103 (34.3)
	31 to 40	11 (13.8)	60 (27.3)	71 (23.7)
	41 to 50	29 (36.3)	44 (20)	73 (24.3)
	51 to 60	24 (30)	13 (5.9)	37 (12.3)
	61 to 70	2 (2.5)	12 (5.5)	14 (4.7)
	Above 71	0 (0)	2 (0.9)	2 (0.7)
	Total	**80 (100)**	**220 (100)**	**300 (100)**
Gender	Male	54 (67.5)	65 (29.5)	119 (39.7)
	Female	26 (32.5)	155 (70.5)	181 (60.3)
	Total	**80 (100)**	**220 (100)**	**300 (100)**
Education	Plus two	12 (15)	29 (13.2)	41 (13.7)
	Graduate	44 (55)	118 (53.6)	162 (54)
	Post Graduate	23 (28.7)	72 (32.7)	95 (31.7)
	Others	1 (1.3)	1 (0.5)	2 (0.7)
	Total	**80 (100)**	**220 (100)**	**300 (100)**
Experience	Below 1 year	1 (1.3)	39 (17.7)	40 (13.3)
	1 to 5 years	15 (18.8)	135 (61.4)	150 (50)
	6 to 10 years	25 (31.3)	28 (12.7)	53 (17.7)
	11 to 15 years	28 (35)	7 (3.2)	35 (11.7)
	16 to 20 years	5 (6.3)	8 (3.6)	13 (4.3)
	21 to 25 years	5 (6.3)	2 (0.9)	7 (2.3)
	Above 25 years	1 (1.3)	1 (0.5)	2 (0.7)
	Total	**80 (100)**	**220 (100)**	**300 (100)**
Salary	No Salary	64 (80)	13 (5.9)	77 (25.7)
	5000 to 10000	1 (1.3)	55 (25)	56 (18.7)
	10001 to 15000	13 (16.3)	53 (24.1)	66 (22)
	15001 to 20000	2 (2.5)	65 (29.5)	67 (22.3)
	20001 to 25000	0 (0)	26 (11.8)	26 (8.7)
	25001 to 30000	0 (0)	7 (3.2)	7 (2.3)
	Above 30000	0 (0)	1 (0.5)	1 (0.3)
	Total	**80 (100)**	**220 (100)**	**300 (100)**

Table 2: Sample frame of psycho social rehabilitation NGO employees

Zone	Designation		Total
	NGO Leaders	Professional staff	
Northern	30 (37.5)	37 (16.8)	67 (22.3)
Central	23 (28.7)	105 (47.7)	128 (42.7)
Southern	27 (33.8)	78 (35.5)	105 (35.0)
Total	**80 (100)**	**220 (100)**	**300 (100)**

Table 3: Mean score of System thinking for learning Organization

| Statement	Total		Status of Learning organization						F	P
			Fully implemented		Partially implemented		Not implemented			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Action plans and needs and abilities of the beneficiaries	2.95	1.47	4.48	.526	3.32	.856	1.72	1.12	241.269	.000
Professional practices and its impact in the organization.	2.97	1.47	4.48	.526	3.34	.819	1.75	1.16	232.824	.000
Professional issues as a snapshot or event.	3.12	2.69	4.47	.526	3.41	.829	2.03	3.71	24.935	.000
Organization rules and its adherence to the state and central governments	2.97	1.48	4.46	.525	3.41	.829	1.73	1.17	229.382	.000
Organizational challenges and beneficiaries.	3.13	1.98	4.72	.525	3.47	.900	1.88	2.25	83.898	.000
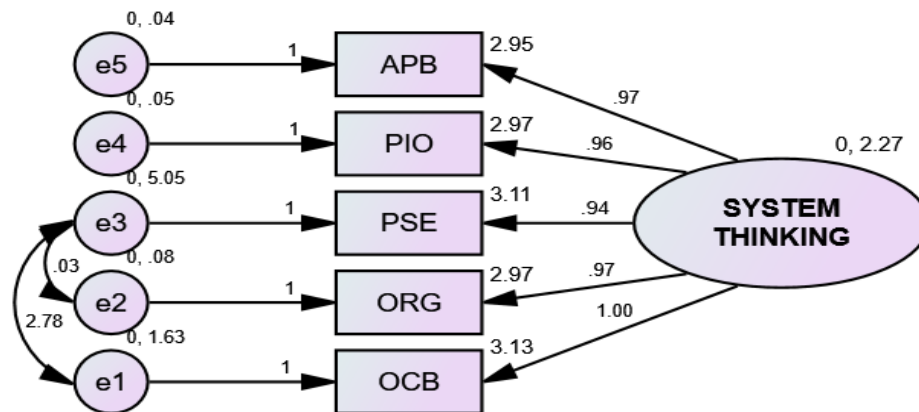
Figure 1: Measured model for System Thinking

Discussion and Conclusion

The overall purpose of this cross-sectional survey study was to develop an understanding of how the implementation of system thinking is varied in different NGOs sampled in the survey. System Thinking, the spiritual cornerstone of Learning Organization has got significant difference in its level of implementation in different in different Psycho Social rehabilitation NGOs across the state. The survey also underlines the fact that the conceptualization of system thinking is varied among NGO Managers and Professional Staffs in almost all NGOs participated in the survey.

There were two group of people participated in the survey namely NGO Managers and Professional staffs. The level of understanding of Managers and professional staff are varied on System Thinking in

relation to Learning Organization concept. The Psycho Social rehabilitation NGO managers understand that System thinking is much important than becoming learning organization or they fail to understand the difference between learning Organization and its dimensions. However, professional staff understands both learning organization and its dimension and the inter relationships between each dimension to its fullest. They believe that all human endeavors are also systems. They too are bound be invisible fabrics of interrelated actions which often take years to fully play out their effects on each other. On the other hand, NGO Managers do not have good understanding on learning Organization, particularly system thinking and get involved in various learning activities without conceptualizing the context and its relevance.

According to the result of this study, System thinking is practiced in almost all NGOs in Kerala. The survey found that there is considerable difference in its implementation in different NGOs. System Thinking is high in NGOs where Learning Organization is fully practices while there is subsequent decrease in the level of implementation of system thinking in NGO where learning Organization is partially and not implemented.

Most of the NGOs participated in the survey has got a traditional hierarchy where a single person or a group of people are the decision makers. Effective leadership, which is not predicated on a conventional hierarchy but rather consists of a variety of individuals from all levels of the system who led in various ways, is the first essential component, according to Peter Senge, in building a learning organization (9). Second, there needs to be an understanding that everyone of us have the innate ability to solve the issues we encounter and that we can and will imagine a different future and act to make it a reality. According to Gephart and colleagues in Learning Organizations Come Alive, "the culture is the glue that holds an organization together." The culture of a learning organization is built on transparency and trust, where workers are encouraged to learn and take risks, is open to experimentation, values risk-taking, and supports the well-being of all workers (10, 11). The analysis

and findings lead to the following few recommendations for utilizing system thinking dimensions to transform NGOs into Learning Organizations (12).

- Create Continuous Learning Opportunities
- Promote Inquiry and Dialogue
- Encourage Collaboration and professional development
- Create Systems to Capture and Share Learning
- Empower People toward a Collective Vision
- Connect the Organization to Its Environment
- Provide Strategic Leadership for Learning

While most of the NGOs that took part in the survey employ system thinking and other aspects of learning organizations, not all of them are actual learning organizations. A learning organization is one that has made a strategic commitment to gathering and disseminating knowledge within the company for the good of individuals, groups, and the whole (13). It achieves this through coordination and the group's ability to see and comprehend a changing environment, to bring in new information via ongoing learning and development, to incorporate that knowledge into procedures and systems, and to convert that knowledge into outputs. Considering this, as we analyze the data, we can see that the NGOs that took part in the survey had differing levels of system thinking knowledge and application. All the elements of a learning organization are interconnected and related, according to Peter Senge. Without system thinking or individual learning, there can be no development. Thus, an NGO cannot be transformed into a learning organization using the idea of learning organizations without system thinking.

Every organization has an obligation to transform into "learning organizations where people are continually learning how to learn together, where people are continually learning how to expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free" (9) A shift of mind - from seeing ourselves as separate from the world to connected to the world" (9) is the first step in developing the culture and environment that will serve as the cornerstone of a learning organization. This involves viewing ourselves as

essential members of the workforce rather than as distinct and inconsequential cogs in a machine. Finally, identifying and dissecting defensive reasoning is one of the most important tasks that needs to be completed in every organization. Change can never be more than a transitory stage until that time (14). Everyone needs to understand that the processes they take to identify and address issues may lead to other issues for the company (14). In order to overcome all obstacles and achieve organizational sustainability and professional development, the nonprofit sector must be a learning organization. Therefore, a good continuous learning environment in the nonprofit sector can be ensured by practicing the essence of learning organizations, conceptualizing their purpose, and professionally executing all of their dimensions. It is imperative to view NGOs as learning organizations since they provide invaluable services to both the country and humanity.

Practical implication: The research has found that learning organization, offers a relatively simple view of Learning Organization without losing its complexity. This study offers insight into the learning Organizational practices in NGOs in Kerala by examining the practice of, system thinking. As the majority of the organizations that participated in this study struggled with their learning organizational practices, this could be a wider issue in the sector, and the findings may apply to many organizations. Therefore, it is of paramount importance for boards, CEOs and staff to sit together and engage in a critical reflection on their learning practices by using tools such as this so that they can appreciate the strengths and weaknesses of their learning practices and put strategies in place to develop their capacities to manage the organizations in an ever-changing, complex and uncertain environment. This will also help them to understand the importance and processes of organizational change and articulate their role in this change. There is a scarcity of research on learning organizational practices in non-profit sector in India particularly in NGOs in Kerala and more research in this area is needed to bring diverse perspectives on learning organization and NGO management. While this study provides a new model of learning Organizational practices in NGO

sector, there is a need for more comprehensive empirical research on the impact of the systems thinking on organizational strategies and structures, especially given the rapid changes in those environments. The impact of government policies on organizational development and performance would be an interesting topic to investigate. More research should also be conducted on how NGOs manage their resources to become learning organization and what are the limit factors in achieving organizational sustainability.

Abbreviations

Non-Governmental Organizations (NGOs); Logical Framework Approach (LFA); Foreign Contribution Regulation Act (FCRA); Analysis of Variance (ANOVO).

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Author Contributions

Both the authors have contributed equally to this research.

Conflict of Interest

The authors do not have any possible conflicts of interest with the publication of the manuscript or an institution or product that is mentioned in the manuscript and/or is important to the outcome of the study presented.

Ethics Approval

The research was granted ethical approval on December 7, 2020 and the criteria were followed through the research.

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