

# Concept for Knowledge out of Sri Lankan Non-State Sector: Performances of Higher Educational Institutes and Successes of Its Sector

S. Jeyarajan

**Abstract**—Concept of knowledge is discovered from conducted study for successive Competition in Sri Lankan Non-State Higher Educational Institutes. The Concept discovered out of collected Knowledge Management Practices from Emerald inside likewise reputed literatures and of Non-State Higher Educational sector. A test is conducted to reveal existences and its reason behind of these collected practices in Sri Lankan Non-State Higher Education Institutes. Further, unavailability of such study and uncertain on number of participants for data collection in the Sri Lankan context contributed selection of research method as qualitative method, which used attributes of Delphi Method to manage those likewise uncertainty. Data are collected under Dramaturgical Method, which contributes efficient usage of the Delphi method. Grounded theory is selected as data analysis techniques, which is conducted in intermixed discourse to manage different perspectives of data that are collected systematically through perspective and modified snowball sampling techniques. Data are then analysed using Grounded Theory Development Techniques in Intermix discourses to manage differences in Data. Consequently, Agreement in the results of Grounded theories and of finding in the Foreign Study is discovered in the analysis whereas present study conducted as Qualitative Research and The Foreign Study conducted as Quantitative Research. As such, the Present study widens the discovery in the Foreign Study. Further, having discovered reason behind of the existences, the Present result shows Concept for Knowledge from Sri Lankan Non-State sector to manage higher educational Institutes in successful manner.

**Keywords**—Adherence of snowball sampling into perspective sampling, Delphi method in qualitative method, grounded theory development in intermix discourses of analysis, knowledge management for success of higher educational institutes

## I. INTRODUCTION

A study on Knowledge Management (KM) in Higher Educational Institutional (HEI) context is conducted to manage successfully and competitively the institutes, which are to align with Knowledge era. A similar study is presented in [1] that gives Knowledge management as What it knows and What it has to know. Reference [6] gives that Higher Educational Institute is an Institute, which awards/teaches certificate or degree courses. Further, Reference [2] presents that Sri Lankan Non-State HEI context is dramatically growing. As such, a research is conducted in the Sri Lankan context to test existences of Knowledge Management Practices and to reveal reason behind of the existences. The

conducted of the study followed attributes of [1], [3], [4] that the Present Study conducted in the paradigm of Qualitative Method, which used Delphi Method and confirmed the existences of KM practices for performances of the firms and successive completion in the context. Finally, the result of the Sri Lankan research shows Concept for Knowledge to manage Higher Educational Institutes.

When compared KM Practices of Public and Private HEIs, Reference [1] gives that Management of What is known to and What has to be known is Knowledge Management (KM). Further, KM activities are value creating activities in organisations. In addition, when criticised KM models the reference [5] sees Knowledge Management as economic resource likewise Land and Labour.

When presented World data on Education, Reference [6] concepts Higher Educational Institutes as certificate or degree awarding Institutes or teaches for certificate or degree. In the meantime, A Research survey at Weekly publications of Sri Lanka especially at Educational and Employment Magazines of Sunday Observer weekly [2] observed that the Institutes are increased in number and unethically competing thorough attributes likewise reduction of course fee through cut off in contents of course at Institutes in Sri Lankan Non-State context. As such, the research searched for similar issues in reputed literatures in Emerald inside likewise databases to facilitate the growth in ethical manner, which contributes the Institutes and its context. As a result of the searches in the databases, present research found [1] and [3]. These researches in the foreign countries belong to Knowledge management and reports concepts, which base Knowledge Management Practices for successive competitions and for firm performances.

Present study conducted study on Non-State Higher Educational Institutes for selecting research method and finally found that the suitability of qualitative method, which uses attributes of Delphi method [7] for a survey in Institutes. Ground theory development [8] is adopted as technique for analysis.

Basis for research is presented in Section II and method of the study is given in Section III, which finally develops art of data collection in Section VI, and data analysis and result is presented in Section V. Finally, Section VI concludes the findings and gives directions for future work.

## II. RESEARCH SURVEY

References [1], [3], [4] present management of issues of

unprecedented growth of Higher Educational Institutional sector that the management uses application of Knowledge Management practices. As such, implementation of Knowledge Management Practices in the studies for successes of Higher Educational Institutes (HEI) under stiff and fierce Competition in changing external condition was conducted in the context of such foreign Countries.

Longitudinal study of Sri Lankan Newspaper especially the Sunday Observer weekly [2] detected similar issues in Sri Lankan Industry. As such, a research is conducted similar research of above researches in Sri Lankan Industry to reveal existences of above such Practices and its reasons behind.

Reference [9] gives basis of developing working model of Sri Lankan Non-State HEIs. Further, [6] presents details about HEIs in its definition about HEIs as degree awarding institutes where the presentation studied World Data on Education, which explored further the definition as degree is result of undergraduate or postgraduate or certificate study.

Reference [5] criticised KM models and gives definition of KM out of [10], to [11]. that stresses in its definition as people and learning issues are central to KM. Further, KM is said in the study as multidisciplinary due to involvement of diversified people in it. Further, KM is specified in [12] as resources likewise economic resources, which emerged out of confusion between Intellectual Capital(IC) and KM. As such, KM becomes capitalised term, which leads to IC term. Hence, KM can be taken as intangible assets likewise employee skills, information, patents, copy rights, brands, research and development (R&D), licensing opportunities, innovative use of assets such as database and etc. In addition, Reference [11] gives KM activity as strategy and tactics to manage ICs and Human-centered assets that leads KM as leveraging IC or as recognizing or rediscovering assets that are not in full potential, especially not in employees.

Reference [5] also gives that KM creates, captures, shares and leverages knowledge needed for organizational success. Accordingly, KM Practices (KMPs) explicitly performs knowledge creating activity and knowledge storage activity for organisational success. Hence, KMPs emerged as knowledge-based activities for organisational success. In addition, many activities of organisation are KMPs.

Reference [13] develops generic attributes of KMP and defines KMP as practices that explicitly performs functions of KM or believe to have additional dimension to KM. In addition, Reference [13] continued the exploration of the KMPs into management set, 'Mapping' knowledge relationship set, human resource management set, managing intellectual property position set, and information technology management set; specially discusses reason for the existence of that kind of the KMPs in organisation such as managing intellectual property right in position set of KMPs will exist in a company when the company faces those issues of intellectual property rights. Similarly, management set of KMP exists most likely in all kind of companies. Mapping knowledge relationship set of KMPs is company specific set. Broadly speaking, KMPs is practices that exist in the structure of an organisation. These practices exist in organisational dynamics through processes.

Management of lesson learnt is presented in [14], which specifies that KMPs in HEI are socialising tacit knowledge, internalising explicit knowledge, externalising tacit knowledge, and disseminating the combination of tacit and explicit knowledge. In Comparison of KMPs of public and private HEIs, Reference [1] gives usual KMPs of HEIs, which are knowledge generation, knowledge codification, and knowledge transfer. Reference [1] says that HEI's primarily generates knowledge, codify knowledge and transfer knowledge. Further, HEIs generate kinds of knowledge and codify knowledge in various ways. Similarly, HEIs transfer knowledge through number of medium accordingly. Non-State HEIs of third world countries implemented key practices of knowledge transfer. In addition, References [4] & [1] points out that Non-State HEIs do not adopt the other usual practices.

Reference [13] continues KMPs as explicitly transform information and intellectual assets into persisting value. Further, KMPs capture and/or acquisition, retention and organisation, dissemination and reuse of knowledge, and finally responsible for creating new knowledge. As such, Reference [13] found that half of KMPs in organisations are informal.

Reference [15] studied service quality in HEIs in the context of British Higher Education, and provides different considerations of service quality in Higher Education as consideration of important concepts such as expectations, perceived service performance, unable to confirm, and the relationship between consumer satisfaction and perceived service quality.

Service, Being impalpable and cannot grasp mentally, differs from good. The differentiation leads following specifications of service: the consumers are part of production and delivery process. Reference [15] also provides further divisions of the service quality, which are technical quality and functional quality. Technical service quality is defined as outcome of the interaction between service provider and consumer [16] cited in [15]. Functional quality is defined as how consumers get the technical quality. Having said those qualities, the service quality expects that the service provider have to provide service which comprising what its consumer expect and adequate service.

Reference [1] gives foundation structure in HEI to implement KMPs. The foundation requires standardise KM process. Following are KM processes in HEI setting:

1. Knowledge creation;
2. Knowledge capture;
3. Knowledge organisation;
4. Knowledge storage;
5. Knowledge dissemination;
6. Knowledge application.

### III. RESEARCH METHOD

Qualitative Method is selected as Research Method of Present research to overcome unawareness about the Research in Sri Lankan context. Further, Delphi Method is added with the research method, which enhances the management of unawareness of the research in the field and in experience of

the Researcher in applying the Knowledge Management.

Semi Structured Qualitative Method is adopted to inform subject detail of the research to participants of Data Collection. The two types of question in Semi-Structure Method, the Open-end type of question and Close-end type of question, are concerned and through Close-end type of question becomes the type of the question in the method through a pilot study.

When presented knowledge manipulation activities, the reference [7] presents that Delphi Method is iterative method, which rounds from iterations one to six, which depends on data and method. Qualitative method uses semi-structured interview, which informs detail of Knowledge Management Practices to participants. In addition, Delphi Method is added to collect enhanced data, that the iteration helps the research to adopt a repetitive nature. Further, this repetitive nature accounted for the researcher's inexperience in the research and unawareness regarding the research undertaken in the field. Accordingly, the researcher has taken necessary steps to mitigate the adverse effects resulting from inexperience and ignorance. Therefore, the above configuration introduced explore-analysis, and confirm-analysis powers of Delphi method's analytical details into the research.

Discourse of the research method is Intermix discourse of interpretive discourse, Dialogic discourse and Critical discourse. The reference [17] conducted research to discover implications of Knowledge Management (KM) in organisation that the study presents:

- Critical discourse is in use to normalise conflicts in data;
- Dialogic discourse is to unpack taken-for-granted social realities in order to uncover their complexities, their lack of shared meanings, and their hidden enclaves of resistance.
- Interpretive discourse is to create a coherent, consensual, and unified representation of what the organizational reality is "actually" like, despite its complexities and contradictions. The research accounts for aspects of organisational life that have not yet been systematised and brought under the control of rationalised logic.

Accordingly, present research adopts Qualitative Method as its research method that the Method includes Delphi Method due to nature of the research in its context and belong to intermix discourse due to expected differences in Data.

#### IV. DATA COLLECTION

Data are collected out of diversified source that the collection is conducted under a framework of KMPs, which are framed in KM processes. That is questionnaires bases KM Practices, which are belong to stages of KM Processes, which are shown in Table II. Further, Development of the questionnaire concerned both types of question and nature of the data collection environment. Having decided the type of question, the source to be interviewed is decided to put into perspective and modified snowball sampling groups. The interviews for the data collection are conducted individually for members of sampling group accordingly. Consequently, the interviews are recorded in electronic and/or paper records with permission of the interviewees. Researcher transcribed

the data records, which not only enhanced the data but also enhance Researcher's contextual knowledge that in future contributed the data analysis process.

When studied for redefining reliability, validity and triangulation of qualitative research, Reference [18] presents that validity and reliability establishes credibility to research and defensibility to result. Further, the defensibility to the result is depends of diversification in data source. As such, the Data source is diversified through selecting institutes and in interview's position of the source of the data. Table I depicts the diversification in detail.

TABLE I  
 DETAIL OF SOURCE

Institution	Interviewee's Position
MIM	Senior Lecture cum Head
ApIIT	Lecturer cum Group Head
MIIT	Lecturer cum Manager
CINEC	Professor cum Dean
CFPS	Deputy MD
OpenArc	Chief Operating Officer

Stages of the KM Processes are critically concerned with collected KM Practices of the literature to develop questionnaire, which finally collected the Data. Table II details the concern. Finally, the data collection is done within the each and every stage specifically.

TABLE II  
 KM PRACTICES OF KM PROCESS

KM Process	Basic KM Practices
Knowledge Creation	Knowledge generation, Knowledge Codification
Knowledge capture	Knowledge Codification
Knowledge organisation	Knowledge Codification
Knowledge storage	Knowledge Codification
Knowledge dissemination	Knowledge Transfer
Knowledge application	Knowledge Codification, Knowledge Transfer

References [18]-[21] cited in [7] stresses that sample source selection is very critical since the study is based on the opinion of experts. Meanwhile, the reference [22] adds that when deciding on experts, the following requirements are mandatory:

- knowledge and experience in addressing the issue under investigation,
- capacity and willingness to participate,
- Sufficient time to participate in Delphi Method,
- Effective communication skill.

Therefore, the Purposeful sampling became sampling technique whereas snowball sampling is added after a modification to facilitate the strengthening facts out of differing views of previously collected data. Detail of above such participant of data collection is provided to supervisor of the research to selected initial source to be interviewed.

Initially, the sources are placed in purposeful sampling group according to sampling strategy, which guided selection of sample for the Data collection. As such, initial selection is

interviewed and analysed within the group to look for strengthening of differing views. It is decided as sampling strategy that if any strengthening views found in source to be interviewed, the found source has to be interviewed immediately on availability of the source, which will be placed in modified snowball sampling group. As such, the sources are systematically collected.

Results of the interviews (collected data) are immediately transcribed to enhance data. Further, the transcription was done by Researcher that transcription is taken to enhance Researcher's knowledge about the field as well as to enhance the data. Finally, the data are developed as question and answer for each and every participant as follows in Fig. 1 which is depicted at Section V.

### V. ANALYSIS AND RESULTS

Reference [8] defines Analysis as Interplay between Researcher and Data. Analysis followed Grounded Theory Development (GTD) technique to discover relevant detail out of the Data. The GTD has basically two stages namely Open coding and Axial coding whereas Selective coding is added in GTD to integrate imaginative use of making comparison. The result of the GTD has shown fair level existences of the Practices in Sri Lankan industry with industry specific Practices and reason behind of both of those Practices in the Sri Lanka Industry and found in literature.

Having developed questions of questionnaire for collected Practices of literature, the question and answer for each question are collected separately that the questions are then tagged with corresponding KM Practice to initiate the analysis.

Analysis is initiated at Open coding, which identifies relevant labels out of answer to question. Fig. 1 depicts identified Labels in square bracket.

<p><b>Interviewer:</b> Do you expose your students to industry?  <b>Interviewee:</b> yes, this is to [give experience] and to [participate in related activities].</p>
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Fig. 1 Open Coding

In addition, Open coding identifies categories/subcategories or properties out of the Labels, which is identified initially. Suppose the marked labels '[give experience]' and '[participate in related activities]' of Fig. 1 are identified in the Open coding as Labels for the identification. Further, the results of the identification are then collected into a framework, which is depicted in Fig. 2.

The phrase Knowledge creation at the first row of Fig. 2 is corresponding stage of KM process that the KM Practice, 'Preparing report once a year from R&D on future market value of courses' belongs to. Organising stage is the stage of the analysis. Another stage is named in the analysis as Facture stage. All the questions correspond to a KM Practices are finally collected into the

Framework (Organising Framework). Similarly, other Frameworks are created for the other Knowledge Management Practices. That is separate Organising Framework is created for each KM Practices and each Framework captured data out of corresponding questions in the source data.

<b>Knowledge creation:</b> Preparing report once a year from R&D on future market value of courses.			
<b>Organising stage</b>			
No	Agreement/ relevant to	Concept	Type
1	yes	keep track of the demand of the course	category
18	yes	Equitability of the course	Property
25	no	Always from government budget plan	Category
27	yes	Facilitate Industrial Information	Subcategory

Fig. 2 Capturing concepts

- |  |
|--|
| <ul style="list-style-type: none"> <li>• fill differences</li> <li>• facilitate our customer</li> <li>• cover short comings</li> <li>• .....</li> <li>• .....</li> <li>• manage the differences</li> <li>• prepare ourselves</li> <li>• develop curriculum</li> <li>• produce trends</li> <li>• direct programs</li> </ul> |
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Fig. 3 Categories for Central Category Identification

The Concepts of Fig. 2 are merged with the help of its Type to create Categories out of those agreeing Labels. The merging process begins the Axial coding. The resulting Categories of the merger are placed in a list such as in Fig. 3.

Identification of grounded Category continued through one or more Categories out of listed Categories, which is known as Central Category. Three circumstances arose in regards to the Central Categories: One circumstance is a Category of the list becomes Central Category; Second circumstance is join of two Categories becomes Central Categories and the third circumstance is that Categories of the list are grouped into form separate Central Categories for groups. Table III shows a result of merger based on a Central Category.

KM practice of the analysis is "Monitoring economical, social, and technological trends." In addition, number of categories belonged to the development of the category (Grounded Theory), which is shown in Fig. 3. Consequently, the analysis identified the category 'manage the differences'

of Table III as the central category. Further, the analysis proposed the word “fill” as dimension for categories belong to the identified Central Category. As such, the identification analysed the group and then confirmed central category of the group. Meantime, the identification and confirmation bounded dimension “fill” into range: from “shortcoming” to “differences” such that the bounding absorbs the content of the other Categories in the grouping. Such a result of development is depicted in Table III.

TABLE III  
IDENTIFYING THEORY OUT OF ONE LABEL AND ONE DIMENSION

Facture stage		
No.	Dimension	Label
all	expectation	Account up to date affordability in courses
Dimension		Range
	From	To
Expectation	Students'	Industrial

**Knowledge creation:** Preparing market research report once a year on customer-based R&D.

**Developed grounded theory:** Account stake holders' up to date affordability in courses.

More the agreements found in Organising stage have confirmed that the literature-based KM Practices exist in Sri Lankan Non-State sector of Higher Educational Institutes at faire level. The Grounded theory gives the reason behind of the existences. The combination of the KMP and its reason behind of existences become the Concept for Knowledge out of Sri Lankan Non-State sector to manage Higher Educational Institutes for firm performances and competitive advantages. For Example: the combination “Preparing market research report once a year on customer based R&D: Account stake holders' up to date affordability in courses” is a Concept of Knowledge to improve equitability of courses as well as hosting Institution. As such, Concepts of Knowledge are invented out the study to manage Higher Educational Institutes.

## VI. CONCLUSION

Knowledge Management based Concepts for Knowledge are discovered out of a study conducted at Non-State sector of Sri Lankan Higher Educational Institutes. Discovery is done on Qualitative paradigm. Therefore, existences checkups of results from studies in Foreign Countries in additionally confirmed in the present result. As such, the result is validated and enhanced as discovered some industry specific Practices of Sri Lankan Non-State sector. In addition to existences, the study discovered reason behind of the existences. Knowledge Management based combination of the Practice and its reason behind of existence becomes Concept for Knowledge out of Sri Lankan Non-State sector to manage Higher Educational Institutes. Meantime, the study sketched different working model, which have to be studied further in regards of proposing existence level of Knowledge Management Practices, Knowledge Management based model of Non-State

Sector of Higher Educational Institutes, Knowledge Management for Non-State as well as State Higher Educational Institutes and Knowledge Management based framework for Grounded Theory Development. In addition, Delphi Method for Qualitative study is to be developed theoretically. As such, the publication is proposing Concepts for Knowledge for successes and performances of HEIs with its finding for future work.

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