

# Availability and Usage of Management Information System (MIS) for Knowledge Management (KM) in Micro, Small, Medium Enterprises (MSME's) in Tamilnadu

Duraimurugan Kuppusamy<sup>1</sup>, Rmanigopal C.S<sup>2</sup>, Barakath Ali S<sup>3</sup>

<sup>1</sup>Ph.D Research Scholar, Research and Development Centre, Bharathiar University, Coimbatore, Tamilnadu, India - 641046

<sup>2</sup>Professor and Head, Dean – Management Studies, Faculty of Management Studies, Vinayaka Missions Kirupananda Variyar Engineering College, Salem, Tamilnadu, India – 636308

<sup>3</sup>Ph.D Research Scholar, Department of Commerce and Management, Vinayaka Missions University, Salem, Tamilnadu, India - 636308

\*\*\*

**Abstract** - Organizations are deeply dependent on the Knowledge to sustain and compete in the business. Technologies advancements, Innovations, Frameworks, and Methodologies are evolving globally almost every day. Knowledge Management is critical and vital organizational resource that aids to achieve efficiency, effectiveness, and competitive advantage in the Global competitive business environment. The purpose of this study is to understand the usage of Management Information System tools for Knowledge Management in Micro, Small and Medium Enterprises in Tamilnadu. Both primary and secondary data were used in this study. Structured Questionnaire was administered and data were collected. This study explores the availability and usage of Management Information System to manage Knowledge in the Enterprises effectively and efficiently. Entrepreneurs awareness on the importance of Management Information System for Knowledge Management and their commitment to establish Management Information System in the Enterprise, creating knowledge culture in the organization, Knowledge Management awareness sessions to Employees and guidance to Micro, Small and Medium Enterprises may help them to overcome the awareness issues and enjoy the benefits.

**Key Words:** Knowledge Management, Micro, Small and Medium Enterprises, Management Information System, Organizations, Employees, Awareness

## 1. INTRODUCTION

The Micro, Small and Medium Enterprises Sector plays a vital role in the socio-economic development of the Country. Micro, Small and Medium Enterprises (MSME's) contributes around 8% of the Gross Domestic Product (GDP), which is a substantial contribution to national economy. This sector contributes about 45% of the industrial production, 40% of exports and it forms part of about 95% of the total Industrial units in the Country. Due to technological advancements, social developments and global reach, the business environment is becoming complex, very competitive, and challenging day by day. In today's complex and competitive business environment, Knowledge is believed to be the primary means and all other conventional factors are secondary resources, to sustain and have an edge over competition. Management Information System and associated tools are key enablers for effective and efficient management of knowledge and its usage in the Enterprise.

Literature surveys reveals that Knowledge Management is essential for continual success of Micro, Small and Medium Enterprises across the developing Countries including India. Employees are core for Micro, Small and Medium Enterprises operation and hence their understanding on the importance of Knowledge Management and developing their skills on Knowledge Management practices are essential for success of business. Implementation and usage of Management Information System for Knowledge Management helps to manage Enterprise Knowledge throughout the life cycle effectively and efficiently. Knowledge Management helps and enable Small and Medium Enterprises in increasing productivity, effectiveness, and efficiency in operations. Overlooking Knowledge Management will impact innovation, sustenance, competitiveness, and profitability of the Enterprises.

## 2. OBJECTIVE

The objective of this study is to understand the availability and usage of Management Information System tools for Knowledge Management in IT and ITES Organizations within Micro, Small and Medium Enterprises in Tamilnadu.

### 3. METHODOLOGY

We have used both primary and secondary data for the study. Primary data has been collected using structured questionnaire from selected IT and ITES organizations. Secondary data has been collected from journals and internet websites, which are quoted in the references. There are 12.04 Lakh registered number of Micro, Small and Medium units in the State, providing an employment opportunity to about 80.81 Lakh persons.

NASSCOM Database was used to identify total of 2342 registered organizations, out of which 1335 organizations are having its corporate headquarters in India. As a next step, revenue criteria ( $\leq 10$  Crores) was applied to get Micro, Small and Medium Enterprises in Tamilnadu (82) and Chennai (64). Organizations incorporated before 2014 in Chennai (59) and having  $\leq 200$  employee head count (54) were considered for the study. The questionnaire was administered to the employees of the selected 54 organizations. A Structured questionnaire was prepared for conducting the awareness survey. 42 returned questionnaires from the employees of the respondent organizations were used for further analysis.

### 4. TABULATION AND ANALYSIS

The key characteristics of the questionnaire were Information Technology (IT) Management Information System (MIS) availability in the organization, IT MIS usage to store data on projects, tasks and activities, IT MIS usage to store Supplier and Customer Information, IT MIS usage to support Collaborative work, User-friendliness, and simplicity of MIS, Does MIS enable effective work and does it help to prevent knowledge loss in the Enterprises. The survey questionnaire had provision for the respondents to select five options - Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree. Inputs gathered from the survey questionnaire were tabulated and analysed to arrive at the score for each of the question.

#### 4.1 Management Information System

Weighted Score (WS) and Weighted Average (WA) in table 1 were calculated based on the individual scoring to tabulate relative ranking position of each of the Availability and Usage of Management Information System question. The survey analysis reveals that 60% of the Micro, Small and Medium Enterprises does not have / use formal Management Information System for Knowledge Management. Creating Entrepreneurs awareness on the importance of Management Information System for Knowledge Management and their commitment to establish Management Information System in the Enterprise, creating knowledge culture in the organization, Knowledge Management awareness sessions to Employees and guidance to Micro, Small and Medium Enterprises may help them to overcome the awareness issues and enjoy the benefits. Entrepreneurs and Employees should have opportunities to participate in the external knowledge forums, workshops and collaborate with the partners / vendors to gain Industry exposure, knowledge and best practices.

**Table-1:** Ranking of Management Information System Availability and Usage Questionnaire Responses

Sl No	Statement	WS	WA	Rank
1	IT Management Information System tool / tools are available in our organization	102	20.4	3
2	We use IT Management Information System tools to store data on implemented projects, tasks, and activities	99	19.8	5
3	IT Management Information tools are used to store information on suppliers and customers	107	21.4	2
4	IT Management Information System tools are used to support collaborative work (e.g. calendars, video conferencing systems, communication tools)	123	24.6	1
5	IT Management Information System tools are simple to use and have a user-friendly interface	101	20.2	4
6	IT Management Information system tools enable effective work	93	18.6	7
7	We see the advantage of using IT Management Information System tools in the fact that it prevents the loss of knowledge	97	19.4	6

Micro, Small and Medium Enterprises are the backbone of the industrialization process of many developing countries including India and play a vital role in expanding a country's economy. Every human being has plenty of knowledge in their respective Domain based on their culture, society, attitude, interest, experience, etc. Similar way there are lot of explicit

Knowledge available globally both in public and private repositories, in addition to books, magazines, periodicals, papers etc. Harnessing the Knowledge and utilizing it effectively and efficiently at the right time improves management decision making and collaboration amongst the teams involved. Transparency amongst the teams, mutual respect and trust, collaboration, helping tendency, attitudes of the individuals, learning spirit, innovative culture and team approach enables and eases Knowledge management in the organisation.

Management Information System for Knowledge Management is essential to manage the available knowledge throughout the life cycle effectively and efficiently in the Enterprise.

#### 4.2 Age of Organization

Government of India encourages Entrepreneurship by announcing many attractive schemes and policies to start the Enterprises in Product and Service areas. Schemes like “Startup India” and “Make in India” encourages aspiring professionals to start the Enterprises and to become Entrepreneurs. Table 2 reveals that year on year Micro, Small and Medium Enterprises are growing in numbers and government initiatives are expected to further contribute to the development of the Country by creating additional employment opportunities. Hence knowledge is essential core component for the sustenance and growth of the individuals and the organizations.

**Table-2: Age of Organizations**

Criteria	No of Firms	Percentage
1 to 5 years	10	24
6 to 10 years	19	45
11 to 15 years	10	24
16 to 20 years	3	7
Total	42	100

#### 4.3 Number of Employees

Micro, Small and Medium Enterprises on an average have head count in the range of 1 to 200. Table 3 reveals that the 48% of the organizations employed less than 50 employees and remaining 52% of the organizations employed >50 employees and <=200 employees.

**Table-3: Number of Employees**

Criteria	No of Firms	Percentage
1 to 50 employees	20	48
51 to 200 employees	22	52
Total	42	100

#### 4.4 Scale of Operation (Marketing area)

Advancement in the technologies and globalization, enabled organizations to perform business Globally. Table 4 reveals that 33% of the Micro, Small and Medium Enterprises conduct only Domestic business and 7% of the Enterprises conduct only International (excluding India) business. Whereas 50% of the Enterprises does business globally.

**Table-4: Scale of Operation**

Criteria	No of Firms	Percentage
Domestic	14	33
International	7	17
Both	21	50
Total	42	100

#### 4.5 Business Focus

Nearly 32% of the enterprises are engaged in manufacturing activities, while the remaining 68% are engaged in services based on Government of Tamilnadu, Policy Note. Table 5 reveals that 50% of the organizations are in IT Services business and 7% of the organizations are in Product business. Whereas 43% of the organizations are into both IT Services and Product business.

**Table-5: Business Focus**

Criteria	No of Firms	Percentage
IT Services	21	50
Product	3	7
Both	18	43
Total	42	100

#### 5. CONCLUSIONS

Micro, Small and Medium Enterprises are running successfully and continues to contribute to the Global economy. Employees are the core assets of the organization. Entrepreneurs & Employees knowledge and their awareness on Knowledge Management are key criteria for the success of the Organizations. Implementation of Management Information System for Knowledge Management and usage of MIS Tools is considerably not being practiced. Proper implementation would help employees and organizations to manage available knowledge effectively & efficiently and grow further. Implementation of Knowledge Management in Micro, Small and Medium Enterprises have better outcome, but it has considerable issues, and limitations. These all exist due to poor awareness and understanding of Knowledge Management. It has associated opportunities, and benefits to the stakeholders. Creating Entrepreneurs awareness on the importance of Management Information System for Knowledge Management and their commitment to establish Management Information System in the Enterprise, creating knowledge culture in the organization, Knowledge Management awareness sessions to Employees and guidance to Micro, Small and Medium Enterprises may help them to overcome the awareness issues and enjoy the benefits. Entrepreneurs and Employees should have opportunities to participate in the external knowledge forums, workshops and collaborate with the partners & vendors to gain Industry exposure, knowledge, and best practices. Proper planning and systematic execution will help to achieve successful implementation of Management Information System for Knowledge Management for continual improvement of efficiency, effectiveness, and competitiveness of the organizations.

#### REFERENCES

- [1] Bhanumathi. P and Dr. Jayasmita Rathb, Knowledge Management Challenges and Opportunities in Indian Small and Medium Enterprises (SMEs), Article - ISSN: 2348-3784, TSM Business Review, Vol. 2, No. 1, June 2014.
- [2] Diah Hari Suryaningrum, Universitas Pembangunan Nasional "Veteran" Jawa Timur, Indonesia. Knowledge Management and Performance of Small and Medium Entities in Indonesia, International Journal of Innovation, Management and Technology, Vol. 3, No. 1, February 2012.
- [3] Iftikhar Hussain <sup>1</sup>, Steven Si <sup>1</sup>, Adnan Ahmed <sup>2</sup>, <sup>1</sup> Shanghai University, China, <sup>2</sup> Muhammad Ali Jinnah University, Pakistan. Knowledge Management For SMEs In Developing Countries, Journal of Knowledge Management Practice, Vol. 11, No. 2, June 2010.

- [4] Jagapathi Rao. G.V, Director and Professor, Department on PG Management Studies, Sir C. R. Reddy College, Eluru, Andhra Pradesh. A Study on Socio-Economic Background Of Enterprenures In Small Scale Industries, Indian Journal of Marketing, Volume 40, Number 9, 16294/68, September 2010.
- [5] Jelena Rasula<sup>1</sup>, Vesna Bosilj Vuksic<sup>2</sup>, Mojca Indihar Stemberger<sup>3</sup>, <sup>1</sup>University of Ljubljana, Faculty of Economics, Ljubljana, Slovenia, <sup>2</sup>University of Zagreb, Faculty of Economics, Zagreb, Croatia, <sup>3</sup>University of Ljubljana, Faculty of Economics, Ljubljana, Slovenia. The impact of Knowledge Management on Organizational Performance, Economic and Business Review, VOL. 14, No. 2, 2012, 147-168.
- [6] Kothari. C.R<sup>1</sup>, Gaurav Garg<sup>2</sup>, <sup>1</sup>Former Principal, College of Commerce and Associate Professor in the Department of Economic Administration and Financial Management, University of Rajasthan, Jaipur (India), <sup>2</sup>Assistant Professor in Decision Sciences Area, Indian Institute of Management, Lucknow, Uttar Pradesh (India). Research Methodology, Methods & Techniques, Third Edition, New Age International Publishers, 2014.
- [7] Kuan Yew Wong<sup>1</sup>, Elaine Aspinwal<sup>2</sup>, <sup>1</sup>Lecturer, Department of Manufacturing and Industril Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia [UTM], Malaysia, <sup>2</sup>Senior Lecturer, School of Engineering, Mechanical and Manufacturing Engineering, University of Birmingham, UK. An emprical study of the important factors for knowledge-management adoption in the SME sector, Journal of Knowledge Management, [Emerald Group Publishing Limited], Vol.9, No.3, 2005, 64-82.
- [8] Mahmoud Migdadi, Management Information Systems Department, King Faisal University, Al-Hofuf, Saudi Arabia. Knowledge management enablers and outcomes in the small-and-medium sized enterprises, Industrial Management & Data Systems [Emerald Group Publishing Limited], Vol. 109, No.6, 2009.
- [9] Meliha Handzic, Inaugural Leader, Knowledge Management Research Group (KMRG), School of Information Systems, Technology & Management, The University of New South Wales, Australia. Knowledge Management in SMEs, Practical guidelines, CACCI Journal, Vol. 1, 2006.
- [10] Mobashar Rehman, Ahmad Kamil B Mahmood, Savita K Sugathan, Aamir Amin, Universiti Teknologi Petronas, Malaysia. Implementation Of Knowledge Management In Small And Medium Enterprises, Journal of Knowledge Management Practice, Vol. 11, No. 1, March 2010.
- [11] MSME at Glance 2016, Government of India. Ministry of Micro, Small and Medium Enterprises (An ISO 9001:2008 Certified Organisation).
- [12] Minister for Rural Industries, Government of Tamil Nadu 2016. Micro, Small and Medium Enterprises Department, Policy Note 2016 - 2017, Demand No.44.
- [13] Ramanigopal. C, Faculty of Management Studies, Vinayaka Missions University, Salem – 636308, Tamil Nadu. Principles of knowledge management initiatives in organisation, International Journal of Business Economics and Management Research, Volume : 3, Issue : 10, Year : 2012.