ABSTRACT

Knowledge Management (KM) deals with organizational processes and strategies to consciously manage the knowledge asset of the firm. Implementing a KM system can be complex and dynamic, no matter how well planned and developed. Inevitably a degree of organizational inertia is focused on the current rather than the new. Many organizations have realized that KM is critical both for their long term continued existence and accomplishment, and building sustainable competitive advantage. Various organizations have benefited from designing and implementing KM solution in their businesses and the literature is replete with success stories of organizations worldwide.

KM solution is to capture the explicit and tacit knowledge about people, processes, skills, markets, competitors, customers, suppliers, organization, environment, policies, procedures, regulation, legislation, etc. that exist in the organization in a structured manner and store the same as the organization asset and make available to all employees on a ‘who need what basis’ for use, reuse, revise, update and create value for the organization. The implementation of KM solution is a greater challenge to the organization because it is a change management process. Before the implementation of KM solution, various elements needs to be studied and assessed in detail to improve the ease of implementation. This study considers six set of
elements which is critical for effective and efficient KM solution implementation but have not been given attention to hitherto. A temporal confirmation conceptual model was designed based on the macro level brainstorming study and six elements are identified for the micro level study. The identification of the level and the development of process blueprint of these elements are addressed in this research. The elements include readiness level assessment of people, process and technology for the change; behavior pattern assessment of people for the change and for knowledge creation, use and reuse; taxonomy and technology architecture landscape design with navigation and content Layer of KM components; process, environment, reward and communication design for knowledge capture, storage and retrieval; learning factors and design and linkage design for internal and external levels and functions of organization such as balanced scorecard and vendor managed inventory. Generic implementable models are developed for readiness assessment; behavior assessment; taxonomy and technology architecture; process, environment, reward and communication design; learning design; balanced scorecard linkage and vendor managed inventory linkage with respect to implementation of KM. The framework, design and models for each element is devised in a generic perspective with the integrated approaches and by surveying with 43 higher executives of various manufacturing industry in India and it is applied to a case study of textile machinery manufacturing organization by surveying 216 top level executives
to demonstrate the output of element. Integrated approach of Empirical and expert opinion study with various methods such as Delphi technique, semi-structured interview, questionnaire survey, regression analysis and brainstorming exercise was conducted for each element to devise and generate a generic framework, designs and models. In addition to this theoretical contribution, this research also provides important contributions for KM managers and practitioners and all the framework, designs and models can be leveraged as a base for any manufacturing organization, which is willing to implement KM solution. The devised models can be adjusted to suit to the needs of specific goals and objectives for implementation of KM solution in any manufacturing organization.

**Keywords:** Knowledge Management (KM); Readiness Assessment; Behavior Assessment; Taxonomy and Technology Architecture; Process Design; Learning Design; Balanced Scorecard; Vendor Managed Inventory.