

## DEVELOPMENT OF AN EMPIRICAL MODEL OF KNOWLEDGE MANAGEMENT IN ORGANIZED RETAIL SECTOR USING PATH ANALYSIS

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### **ABSTRACT:**

**Background:** The relevance of knowledge management is bi-fold. It has both academic and industrial relevance. For the researcher to explore knowledge management in organized retail sector it was essential to identify critical success factors of knowledge management and knowledge management dimensions. A thorough review of literature was conducted to identify these underlying factors and a model of knowledge management in organized retail sector was proposed. **Objectives:** The purpose of the study was to empirically test the factors stated in the knowledge management model. Eight dimensions of knowledge management and five critical success factors were identified. The objective of the study was multifold. The research examined the impact of critical success factors on knowledge management dimensions using path analysis. To actualize this aim following hypothesis were formulated:

*H<sub>0</sub>1: There is no significant relationship between critical success factors and knowledge management dimensions.*

**Methods:** A knowledge management scale was developed which was pretested on a sample size of 75. The reliability of the scale through Cronbach's Alpha was calculated as 0.92 that is highly significant. The final sample size for the study was 479, which was collected using multistage sampling technique. Multiple regression and path analysis was used for data analysis. Data was analyzed using IBM SPSS v.21.0

**Major Findings and Conclusion:** The null hypothesis was rejected. Thus, the model successfully predicted the critical success factors, knowledge management dimensions and their correlational relationship. There was a significant relationship between critical success factors and knowledge management dimensions. The study also proposed an improved model of knowledge management in organized retail sector that will be further developed in subsequent research.

**Keywords:** Knowledge Management, Organized Retail Sector, Empirical Model, Path Analysis

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## 1. INTRODUCTION:

For the researchers to explore KM in organized retail sector it was essential to identify factors that differentiate retail organizations from other organizations. Thus the research was conducted in two phases. The first step explored the factors that might define retail organizations as knowledge intensive organizations, which does not form a part of this research. And then from evidence drawn in the first phase assess the relationship between critical success factors of KM in organized retail sector through the help of an empirical model.

The leading research question of this investigation is to what extent knowledge management is present in organized retail sector. On the one hand the focus is broad enough to cover interesting mix of perspectives, approaches and theories. On the other hand, it is a clear goal to rigorously study the notions of knowledge management in organized retail sector and gain insights into its implementation and deployment. The result is a compromise between rigor- a focused study of KM in organized retail sector and relevance – a holistic perspective on the same.

## 2. REVIEW OF LITERATURE:

The dimensions of Knowledge Management identified were Knowledge Analysis or Identification, Knowledge Design, Knowledge Implementation, Knowledge Maintaining and Monitoring, Knowledge Evaluation, Knowledge Capturing and Acquisition, Knowledge Reusing and Sharing, Knowledge Reviewing and Approving (Nissen *et al*, 2005; Wong and Aspinwall, 2004; Tserng and Lin, 2004).

The critical success factors identified for implementation of successful knowledge management in an organization were Organizational Culture, Management Leadership and Support, Organizational Infrastructure, Policies and Strategies, Incentives (Schein, 1993; Grant, 1996)

Several models were also reviewed in order to develop the preliminary model, viz., McInerney, 2002; Ferneley *et al*, 2002; Skanska, 2007; Robinson *et al*, 2004

### 3. STATEMENT OF THE PROBLEM:

The focus of this study is on the organized retail sector in India. The research aims to identify how far selected retailers in India have gone in implementing knowledge management and to what extent knowledge management has improved the performance of organization. For the stated aim of the research specific objectives have been developed and methodologies followed. The specific objectives of the research are as follows:

- To determine the dimensions of knowledge management cycle and critical success factors.
- To examine the impact of critical success factors on knowledge management dimensions.
- To develop a relevant model of knowledge management in the organized retail sector

To actualize the above stated objectives, the following hypotheses was formulated:

*H<sub>01</sub>: There is no significant relationship between critical success factors and knowledge management dimensions.*

### 4. RESEARCH METHODOLOGY:

To investigate KM critical success factors, and KM cycle dimensions in the organized retail sector questionnaires have been used.

A questionnaire of 60 items was used in the study. The study was conducted with a sample of 479 knowledge workers. Different samples have been taken from primary units, then secondary samples have been taken from primary units, and then tertiary samples have been taken from the secondary units. The sample design selected meets the criteria of a good sample design. It is a representative sample. It is viable in context of funds available to the

researcher. The multi stage sampling technique was selected considering the representation basis and element selection basis (Kothari, 2004)

The questionnaire was divided into two sections: one measuring the amount of KM activities, tools and procedures used in the organized retail sector and the second section measured the critical success factors of knowledge management in the organized retail sector.

Cronbach's Alpha is a popular approach used to assess reliability of the scale. The overall Cronbach's Alpha value for the developed scale is:

**Table 1. Cronbach's Alpha Overall Value**

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.971	.908	60

As evident from the above table the overall Cronbach's Alpha value for the entire scale is 0.971. The table was calculated using SPSS 21.

## 5. RESULTS AND DISCUSSION:

Table 5.1. presents the results of regression analysis summary. The table shows the predictors (organizational culture, management leadership and support, policies and strategies and incentives) on outcome variables (*knowledge analysis, knowledge design, knowledge implementation, knowledge maintaining, knowledge evaluation, knowledge capturing, knowledge reusing and knowledge reviewing*) values of R, R<sup>2</sup>, F values and significance level.

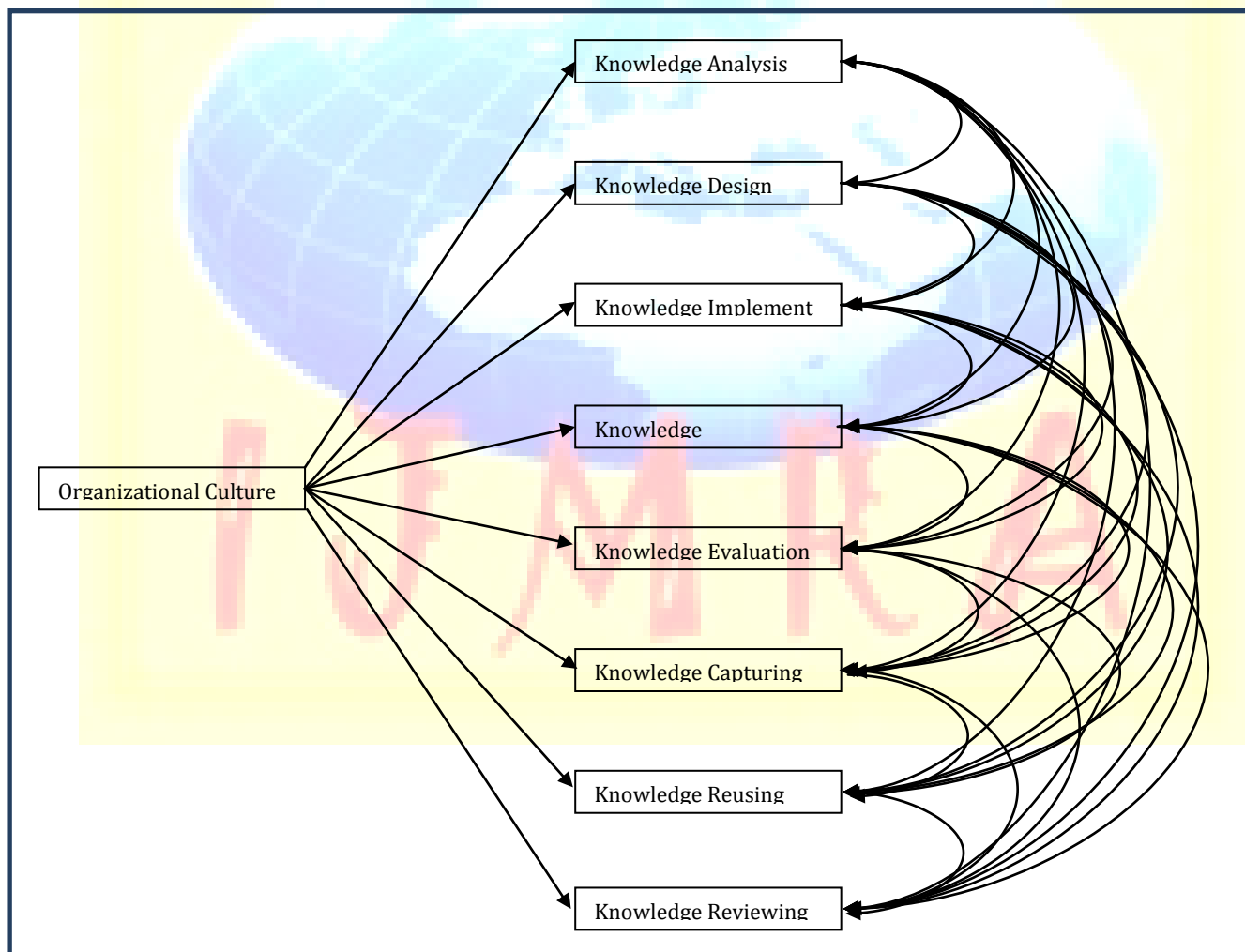
**Table 2. Summary of Multiple Regression Analysis (Critical Success Factors on KM dimensions)**

PREDICTORS	OUTCOME	R	R <sup>2</sup>	F Value	Sig.
Organizational Culture	KM Dimensions	.765	.584	86.041	.000
Management Leadership & Support	KM Dimensions	.724	.524	81.076	.000

Organizational Infrastructure	KM Dimensions	.700	.490	58.603	.000
Policies and Strategies	KM Dimensions	.613	.376	55.487	.000
Incentives	KM Dimensions	.533	.284	73.703	.000

As evident from table 4.6 the relationship between the critical success factors of knowledge management and dimensions of knowledge management are highly significant. Based on multiple regression and analysis of covariance the proposed KM model was tested in five stages using path analysis through IBM SPSS AMOS version 21.

**Figure 1. Path Analysis Diagram for predicting Organizational Culture on Knowledge Management Dimensions**





The above figure 4.7 has co-variances and correlation values of inter related variables. The model integrates and correlates all the factors of knowledge management with organizational culture. If we have a look at the correlation values on the one-directional arrows we see significant correlational values. Thus, the relationship between organizational culture and knowledge management is well supported. Path analysis also shows that there is a significant positive relationship between the two variables. The other models also had significant values and predicted the proposed hypothesis well.

## 6. CONCLUSION:

Thus we may predict that the critical success factors organizational culture, management leadership and support, organizational infrastructure, policies and strategies and incentives are a significant predictor knowledge management dimensions including Knowledge Analysis / Identification, Knowledge Design, Knowledge Implementation, Knowledge Maintaining and Monitoring, Knowledge Evaluation, Knowledge Capturing and Acquisition, Knowledge Reusing and Sharing, and Knowledge Reviewing and Approving.

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