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AN ANALYSIS OF SMALL AND MEDIUM- SIZED ENTERPRISES (SME)

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ABSTRACT

The results derived from application of analytical tools and techniques on the data collected on both parts of the study – (i) pilot study examining the awareness of SMEs about various KM practices and their purpose towards achieving the objectives of a specific KM activity; and (ii) main study dealing with the research model consisting of six constructs – KM, CRM, CKM, PM, PKM and PS.

KEYWORD: Small and Medium Sized Enterprises, Model, SMEs, CRM, KM, CKM, PKM

INTRODUCTION

Four KM activities and the different practices, as listed in Table

3.1 of previous chapter (Chapter 3), have been considered and ANOVA technique is used for analysis. The application of ANOVA on the data collected consists of two different analyses – (1) the importance of various practices grouped under a KM activity, and (2) the differences between the group means of the four different practices of each of the respective four KM activities, as discussed in Chapter 3 and listed in Table 3.1.The overall mean scores of all the four KM activities (knowledge discovery, capturing, sharing and application) are 3.08, 3.07, 3.11 and 3.18 respectively. Similarly, the values of standard deviation of the practices under the respective four KM activities are 1.037, 1.039, 1.114 and 1.005 respectively. From these results, it is found that KM activity has the highest mean score followed by knowledge sharing, whereas knowledge capturing activity acquired the lowest mean score of its practices, followed by knowledge discovery. From these results, it is interpreted that knowledge sharing and knowledge application are very important outcomes in knowledge management. In continuation, knowledge application activity has the lowest standard deviation among its practices followed by knowledge discovery and capturing activities, whereas knowledge sharing activity has the highest standard deviation.

The homogeneity of variances is tested with the help of Levene‟s F statistic and Welch Robust tests. From the results, it is found that all the four activities have Levene‟s F statistic greater than 0.05. Since the condition of homogeneity of variances has been met with this result and there is no deviation found, there is no need to perform the Welch Robust tests. Hence the condition of homogeneity of variances of all the practices grouped under each of the four activities is met and there are similar variances.

ANOVA table is used to check the statistically significant difference between the group means. Except in the case of knowledge sharing practices, the significance is found greater than 0.05

in all the other three cases. Hence, there is a statistically significant difference between the group means of knowledge sharing practices, when compared with other three KM activities‟ practices.

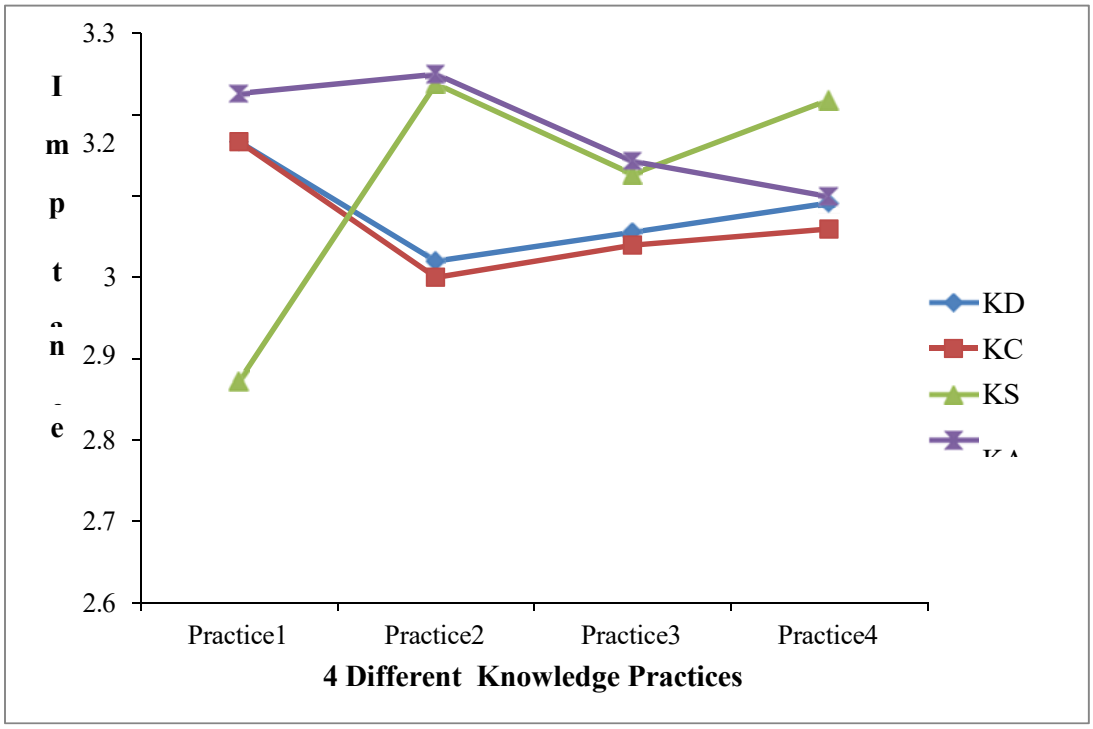
Table 4.1.1. Variances and differences among the various practices under different KM activities

Knowledge Management practice	Mean	Std. dev.	Levene‟s Test for homogeneity of variances	ANOVA results	
				F-value	Significance
1) Knowledge Discovery (KD)	3.08	1.037	0.681	0.922	0.429
2) Knowledge Capturing (KC)	3.07	1.039	0.695	1.186	0.314
3) Knowledge Sharing (KS)	3.11	1.114	0.162	5.830	0.001
4) Knowledge Application (KA)	3.18	1.005	0.475	1.244	0.292

Multiple comparisons table consisting of results of post-hoc tests is also used to understand which specific groups differed to what extent, especially in the case of knowledge sharing activity. To understand comparison of such deviations in an easy way, all the results of post-hoc tests were consolidated and a graph had been generated, as shown in Figure 4.1.1. This exhibits the differences between the group means among the four different practices of each of the four KM activities. It is found that the graph highlights the significant differences between the group means of the four practices of each KM activity, especially the knowledge sharing activity. The graph of each of the other three KM activities (knowledge discovery, capturing and application) also shows very minor deviations among their four practices grouped. In the case of knowledge sharing activity, there is high deviation found by one practice, named,

Learning best practices and lessons" in comparison with other three counterparts in terms of importance.

Fig 4.1.1. Variation of different practices of different KM activities



Knowledge discovery (KD):

(i) There is homogeneity of variances, that is, similar variances are there.

(ii) There is no statistically significant difference between group means.

Knowledge Capturing (KC):

(i) There is homogeneity of variances.

(ii) There is no statistically significant difference between group means.

Knowledge Sharing (KS):

(i) There is homogeneity of variances.

(ii) There is statistically significant difference between group means.

Knowledge Application (KA):

(i) There is homogeneity of variances; similar variances are there.

(ii) There is no statistically significant difference between group means.

From the results, it is found that the SMEs are fully aware of KM practices and their role in deriving knowledge and managing knowledge. Since the study dealt with four different KM activities, the SMEs responded well about them by giving their valuable feedback on the importance of each and every practice and its contribution to a particular KM activity. These results provided valuable support to the

CONCLUSION

Knowledge is a vital asset in any organization to be identified, captured, nurtured, shared and applied. When such knowledge is managed properly, innovations in the processes and products can be improved further leading to generation of new knowledge again which has to be managed properly again. Since small and medium sized enterprises (SMEs) aggressive look at innovation in their products and services to survive in the highly competitive market, there should be proper management of knowledge. But most of the SMEs face financial constraints and because of that they hesitate to spend on procuring and installing useful information systems. These information systems relevant to the nature of business of most SMEs include software applications, database management systems (DBMS), KM systems, design software, e-Business, etc.

The present study is of two parts – one focussed on analyzing the awareness of SMEs on knowledge management practices; and second part focussed on the research model developed from the different proposed hypotheses representing the relationships among the KM, CRM, CKM, PM, PKM and the PS of SMEs. This study dealt with analysis of awareness of KM practices in SMEs and the contribution of knowledge, customer and project dimensions to the success of projects in SMEs. A detailed survey was taken up in different types of SMEs in various parts of India to understand their awareness about knowledge management and the contributing factors for project success. A questionnaire as a survey instrument was developed by taking the help of detailed literature review and also by taking the help of some identified experts from SMEs, who are at top positions and at organizational decision making level. Responses to the questionnaire were collected and 252 responses were found complete in shape and were analysed. The statistical technique of ANOVA was used for data analysis of this part of study, which acted as a pilot study to proceed further to examine the factors that contribute to the success of projects in SMEs. It was found that all the SMEs under study were fully aware of the concepts of KM and the related practices. Even though the SMEs are not in a position to invest on installation of KM systems and project management systems practically and systematically, they are aware of their significance in business and are knowingly or unknowingly implementing those methodologies in a general way to make their projects successful. In order to examine the relationships of KM, CRM, PM, CKM, PKM and PS, this part of study acted as the main research study. This study used a different questionnaire based on the detailed literature survey on the six constructs and their interrelationships. In this case also, the opinion of the experts was taken to refine the questionnaire. Hence, throughout this study, the survey instruments have undergone thorough review and validation, meaning that content validity has been established. For the analysis of data in this main part of study dealing with the detailed research model, the statistical techniques of EFA, CFA and SEM were employed. All the items were found well loaded on the respective constructs, which are further found highly reliable ones. Convergent and discriminant validity of the measurement model

have been well established along with model fit. Using SEM, path analysis was performed to validate different paths of the measurement model so as to test the hypotheses proposed.

CKM should also integrate the benefits from the systematic management of knowledge assets and evaluation of their relevance from the perspective of customers (Pavicic et al, 2011). In the context of SMEs studied in Indian automotive SMEs, Pillania (2008) identified customer focused knowledge as the most common strategy under KM. Based on this report and also the support extended by researchers like von Hippel (2001), Bolton and Shruti (2009), van Doorn (2010) and Hoyer et al (2010), a positive relationship has been proposed to exist between KM and CKM in SMEs.

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