

# Knowledge Management Implications on Financial Performance and Efficiency: A Survey of Listed Indian Companies

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## Abstract

Knowledge management (KM) came into existence in India in the beginning of 2000 but till date the extent of KM implementation differs widely across industries. There are companies which have successfully implemented knowledge management but there are others which practice KM in bits and pieces. Empirical evidence to some extent supports that KM has a positive impact on operational performance including financial performance. The Global MAKE awards organisation claims that organisations practicing KM report a major improvement in their results including Return on Revenue and Total return to Shareholders. The purpose of this study is to validate these findings in Indian organisations via a perception study of the employees. The sample for the study is companies listed in India with 320 respondents across different sectors and with different levels in the organisation. KM practices in these organisations vary from moderate to high. Data for the study was collected between 2013-2014. The findings of the study indicate that most of the organisations which claim that they have implemented KM but are not deriving the results out of it may not be aware of the term “effective KM”. Effective KM does not mean ‘more the learning the better’ or ‘the more knowledge the better’ rather it means knowledge

that is relevant. The results of the study indicate a proclivity towards better financial performance for companies which are practicing effective KM. This study thus rejects the findings of some previous studies which state that KM does not have an impact on financial performance. The study would be helpful to the industry to identify the critical success factors for implementing KM and for the practitioners, to assess the tangible benefits of KM. The limitation of the study is that it is focussed on few sectors and based on the perception of the employees.

**Key Words:** Efficiency, Financial Performance, Knowledge Management, Listed Companies.

## 1. Introduction

The rapid growth of technology has resulted in the creation of a knowledge based business environment. If one was to think of the way businesses have evolved over the years, they moved from a position where capital was the prime requirement to set up a business, moving on to mass production becoming the criterion for successful business and later to the business idea or knowledge acumen being the centre for good business growth (Drucker, 1995). This

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development happened somewhere in early nineties where it was realised that knowledge management is not a fad but a necessity and needs to be adopted as a discipline.

## 2. Review of Literature

Research in the area of KM has been focussed on studying the concept of KM comprising of fundamentals of knowledge management (Wiig, 1993; Liebowitz & Beckman, 1998; Beijerse, 1999), types of knowledge (Polanyi, 1997; Nonaka and Takeuchi, 1995), the frameworks of knowledge management (Holsapple and Joshi, 2002; Holsapple and Joshi, 1999; Rubenstein et al., 2001; Arora, 2002), knowledge Management and artificial intelligence (Fowler, 2000; Liebowitz, 2001), knowledge Management and decision support systems (Courtney, 2001; Bolloju et al., 2002), taxonomies on KM (Liao, 2003; Kakabadse et al., 2003; Singh et.al., 2006; Anantatmula & Kanungo, 2006; Wong & Aspinwall, 2005; Anand et.al., 2011), knowledge Management in SMEs (McAdam & Reid, 2001; Wong & Aspinwall, 2005; Ruiz-Mercader et. al., 2006; Supyuenyong et al., 2011; Gholami et al., 2013) and its related impact on organisational performance (Kalling, 2003; Darroch, 2005; Mercader et al., 2006; Marque's & Simon, 2006; Sharma, 2007; Moustaghfir, 2008; Zack, 2002; Vidoviæ, 2010; Smith et al., 2010; Supyuenyong & Swierczek, 2011; Rašula, 2012; Sharma, 2013). To conclude, KM and its relationship with innovation, improved performance, better customer satisfaction, and employee retention have been the contemporary issues in the area of KM. However individual level studies may complement the organizational level studies, leading to a more comprehensive understanding of knowledge management (Muhammed et al., 2009).

The literature on KM indicates that knowledge does cause a change in organisational performance (Tippins and Sohi, 2003; Kalling, 2003; Darroch, 2005; Kridan and Goulding, 2006; Marque's and Simon, 2006; Sigala and Chalkiti, 2007; Bogner and Bansal, 2007; King et al., 2008; Pillania, 2008). However not all

the studies support that the change is a positive one. Kalling (2003) in his study linking KM to performance observed that the link between KM and performance might not always exist and that the relationship may stop at proxies of profit but not profit itself. Darroch (2005) testing the impact of KM on innovation and firm's performance debated that of all the KM processes, only responsiveness to knowledge had an impact on financial performance. Seleim (2011) in his study KM and OP in Egyptian software firms concludes that only knowledge application influences organisation performance. Marque's & Simon (2006), in their study effect of KM on firm performance have suggested that the relationship could exist but it can be tested by conducting a longitudinal study and the results could be clearer.

Authors however believe that KM has various financial and non-financial benefits which have a bearing on the organisational performance like 'better decision making, smoother team work, improved learning, better communication, enhanced employee skills, higher employee satisfaction, enhanced flexibility, better customer relations, better service quality, improved customer satisfaction' (Singh et.al, 2006; Dalkir, 2005; Chase, 1997); increased employee empowerment, employee loyalty and business continuity, developing core competencies, improved business processes, risk reduction (Anantatmula & and Kanungo, 2006; Beijerse, 1999); sharing best practices (Davenport, 1998); developing new business opportunities (KPMG, 2000); innovation (Darroch, 2005; Davenport, 1998; Dalkir, 2005); efficient management of intellectual capital (Demarest, 1997); improved labour productivity (Pham & Hara, 2011). The listing is important for knowing which benefits are directly impacting financial performance and which have an indirect impact.

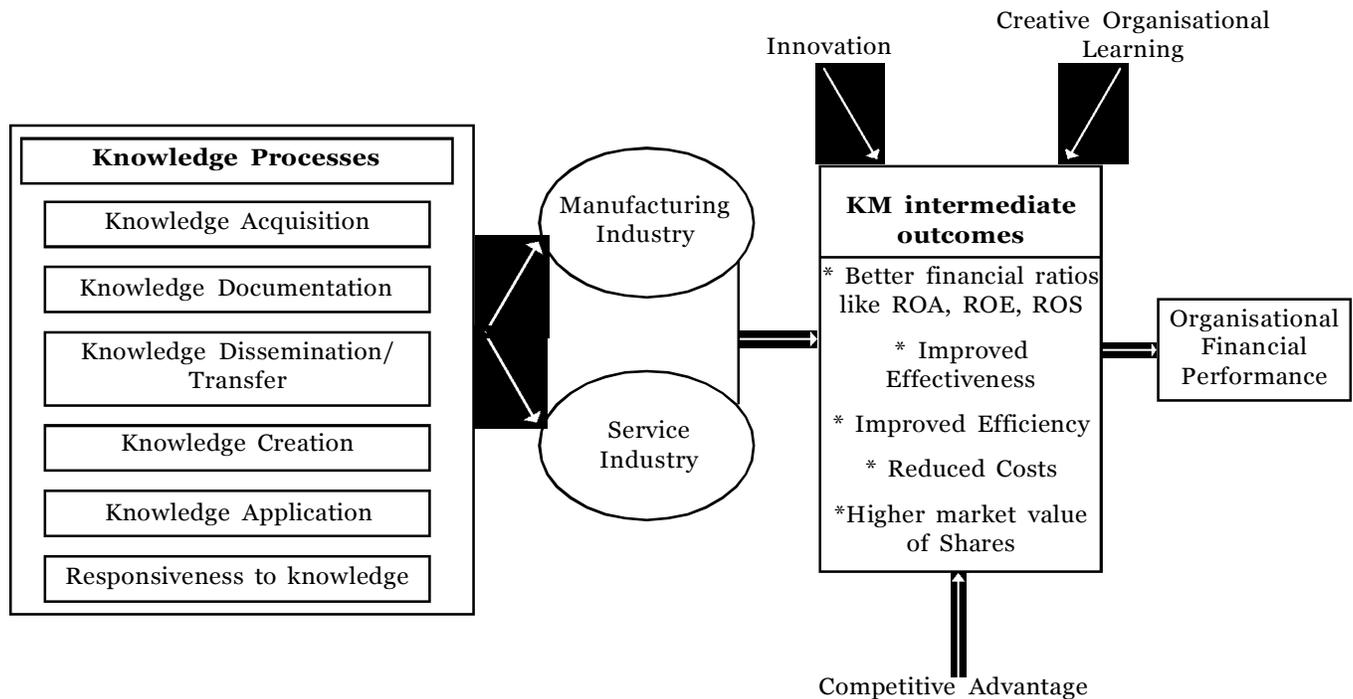
Under financial benefits, KM is known to have resulted in higher sales/profits; increased operational efficiency by cycle time reduction; improved revenues through licensing of patents (Singh et. al, 2006, Anantatmula & Kanungo, 2006; Chase, 1997), reduced costs (Feng et.

al, 2004); Higher ROA and ROS (Vidoviæ, 2010).

Based on the literature review, a model has been developed for the study and given in Fig

1. The existing study gauges the perception of the employees about KM processes and the benefits on knowledge management on financial performance. The model is given below.

**Knowledge Management and Organisational Performance**



**Figure I: Proposed Model for the Study**

**3. Objectives of the Study**

Numerous studies have discussed the importance of culture and the role of top management in the success of KM activities (Gold et al. 2001; Singh & Sharma 2011). For successful KM implementation it is important that whatever initiatives are being taken with regard to KM and its processes by the top level management are being communicated to the lower level as well (Bagorogoza et al., 2011). The study is an attempt to validate the same by testing whether the employees of the organisations are aware of the KM practices which the organisation is pursuing. It also checks the perception of the employees with regard to KM and its benefits. The findings of this study can be related to the organisation’s performance to assess tangible benefits of KM.

For ex. if an employee perceives its organisation to be high on KM and the financial performance is also good, it can be said that KM can be linked to better financial performance.

**4. Methodology**

**Sample Selection**

The study is a perception based study and stratified random sampling has been used. The sample for the study is companies listed on the Bombay Stock Exchange. The companies were arranged in descending order based on their turnover. The top hundred companies were selected as sample and were contacted for the survey. Out of 100, 25 companies agreed to respond to the survey giving a response rate

of 25%. A structured questionnaire comprising of 58 questions was sent to these company employees which included all the levels – senior, middle and executives. The employees were contacted via email or personal meetings to collect the responses. The completed questionnaire responses were received from eight companies only which were used for the analysis. A total of 320 responses were collected across these companies.

The instrument for the study was an adopted one from a study conducted in Egypt in 2007 but since this study was conducted on the Egyptian software firms, the questionnaire needed modifications to make it suitable for the Indian scenario and covering questions on all kinds of industries. The modified instrument was tested by conducting a pilot study in a banking & finance company at its multiple locations. Based on the pilot study, changes were made in the instrument before it was sent to other companies for their responses. The instrument was tested for reliability which was 0.95 and considered to be very good (Nunally, 1967).

### Measurement Tool for the Study

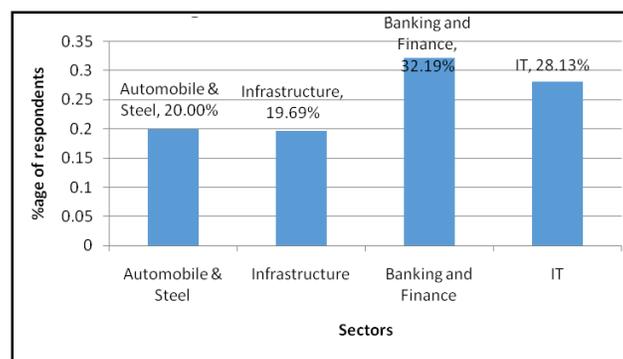
The research in discussion is part of the broader study on knowledge management which is being conducted to see if KM has an impact on the financial performance of the companies. This tool was designed to assess the level of KM in

the organisations and if it had an impact on the financial performance. The study is being conducted in two broad sectors being manufacturing and service. In each of these sectors different industries were contacted to participate in the survey. The companies include a wide range of sectors like – banking and finance, Information technology, infrastructure, automobile, steel, telecom, aviation and pharmaceuticals. The questionnaire is based on a five point Likert scale from 1 to 5 where 1 denotes complete disagreement and 5 denotes complete agreement to a practice/ condition. There were 58 questions in all focussing on various KM aspects/practices like knowledge acquisition, knowledge documentation, knowledge transfer, knowledge creation, knowledge application, responsiveness to knowledge and KM related performance. The demographics which are an important part of this study have been discussed in the next section. Data for the study was collected between 2013-2014.

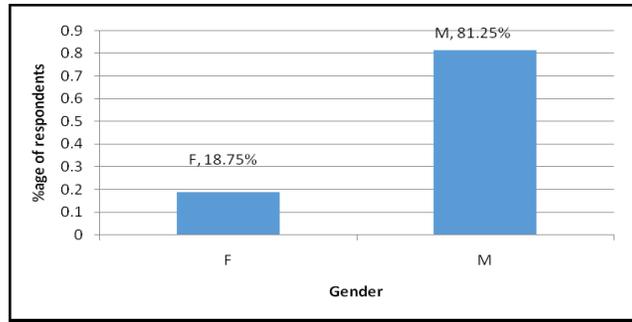
## 5. Findings and Analysis

### Demographics of the Study

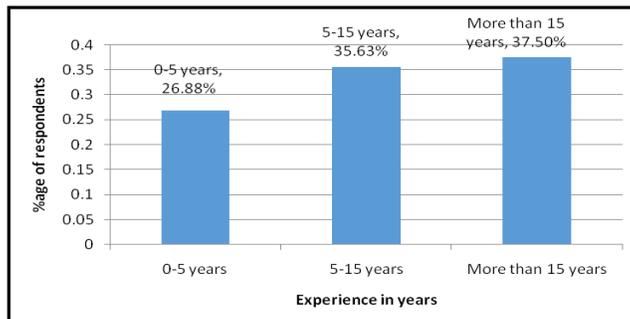
Eight companies were taken for the study with an equal representation of four companies each from both manufacturing and service sector. The number of respondents was 320 but the number varied from organisation to organisation. The respondent details are given below in the following figures.



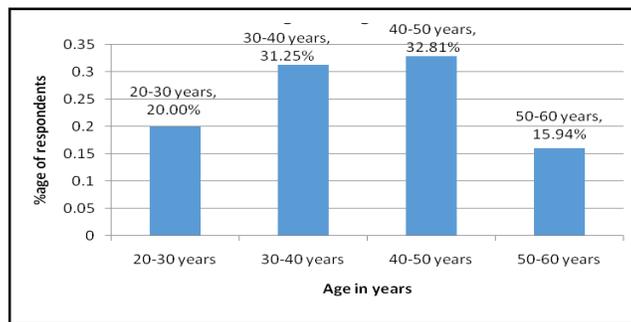
**Figure II: Sector Wise Respondents**



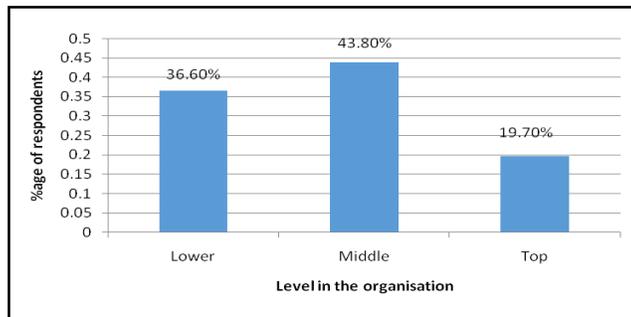
**Figure III: Bar Graph Showing Gender Wise Categorisation of the Respondents**



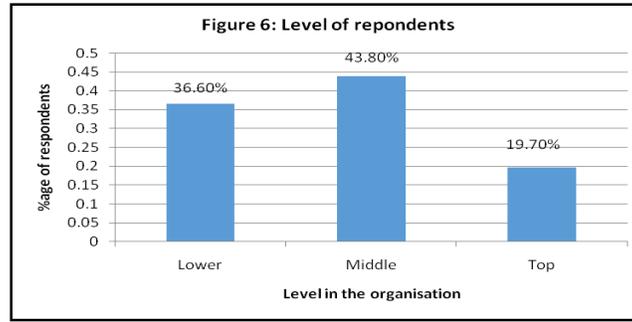
**Figure IV: Bar Graph Showing Experience of the Respondents**



**Figure V: Bar Graph Showing Age of the Respondents**



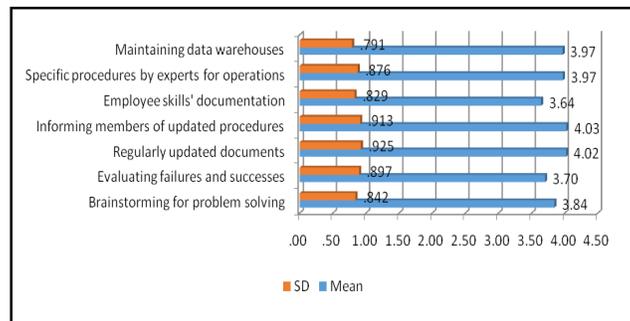
**Figure VI: Level of Respondents**



**Figure VII: Initiatives for Knowledge Acquisition (KA)**

Knowledge acquisition practice as a construct had eight items. The responses show that the most highly observed practice in KA for organisations is recording needs of customers i.e. regularly collecting information about the

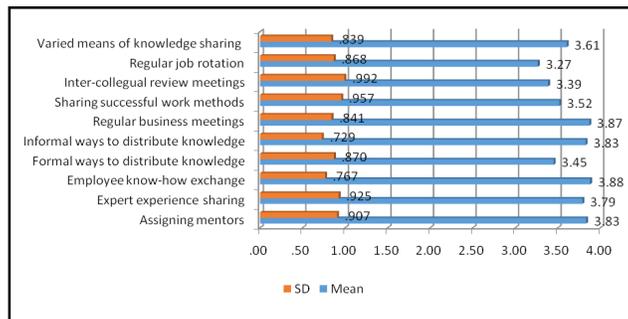
needs of customers with a mean score of 4.11. This was followed by conducting regular trainings with a mean score of 4.01 wherein employees in the firm regularly attend courses, seminars, or other training programs to remain informed.



**Figure VIII: Initiatives for Knowledge Documentation (KD)**

The mean score in knowledge documentation is lower than the highest mean score in the KA practice. While for KA practices, it was 4.11, here it is only at 4.03 which is for informing

members for updated procedures which means that the firm informs its members from time to time of changes in procedures, handbook etc.



**Figure IX: Initiatives for Knowledge Transfer (KT)**

Compared to KD and KA, the mean scores for this practice are much lower. The highest score in this category if were 3.88; for employee

know-how exchange i.e. the extent to which employees share with colleagues and others their knowledge/know how.

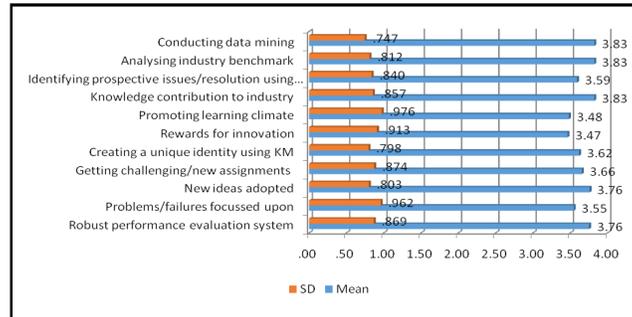


Figure X: Initiatives for Knowledge Creation (KC)

The mean scores for the responses for knowledge creation showed that most of these were in the category of agree rather than a strongly agree. Three practices being – conducting data mining to discover new

knowledge and insights, analyzing benchmark at the industry level and contributing to the development of the important ideas and knowledge in the industry had a mean score of 3.83.

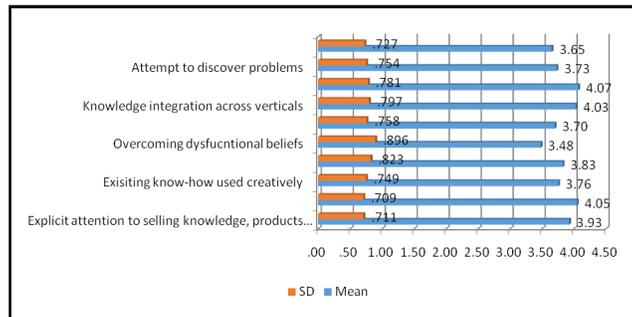


Figure XI: Initiatives for Knowledge Application (KA)

The highest score in this category was 4.07 for maximising knowledge use which implies that firm maximizes knowledge use through its

organizational structure, management systems, and practices.

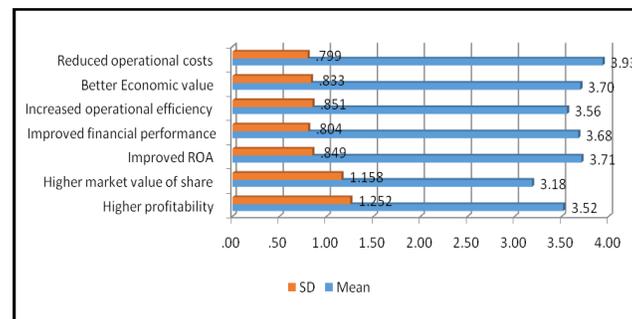
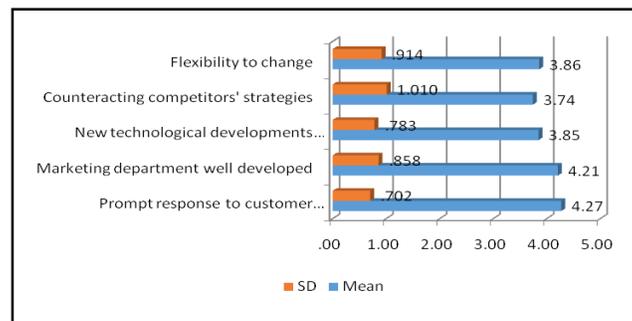


Figure XII: Impact on Financial Performance

The next part of the tool was aimed at ascertaining whether the respondents felt that knowledge management had an impact on the financial performance of their organisation. The responses here were in the range of neutral to somewhat agree. The highest mean score was 3.93 for reduced operational cost which implied that KM implementation helped in reducing operational costs. The respondents also felt that their Return on Assets improved due to KM and rated it at 3.71. The third important aspect was that KM resulted in a better Economic value for the organisation with a score of 3.70. A mean score of 3.68 was given to better financial performance as respondents felt that

post KM implementation, their financial performance has been better than before. Increased operational efficiency and better profitability were two more benefits of KM with a mean score of 3.56 and 3.52 respectively. The respondents felt that the day to day operations had improved due to the existence of knowledge documents, data warehouses and a lot of time could be saved not hunting for information which was the case prior to KM being implemented. Since cost was being saved and operational efficiency had improved, the impact on profitability was direct. However it was not clear as to what percentage of increase was attributable to the KM efforts.



**Figure XIII: KM and Increased Efficiency**

By adjudging the scores on how responsive the company was to the acquired knowledge, the impact on efficiency was ascertained. The highest mean score was 4.27 for prompt response to customer complaints/concerns/queries. The respondents agreed that their firm was quick in resolving customer complaints as their staff was trained and sufficiently aware to handle the situation. The second prevalent practice in this category was a well developed marketing function resulting in marketing plans being implemented effectively. The third was the organisation being flexible and pro-active in implementing strategies with a mean score of 3.86. Information about new technological developments affecting business being circulated quickly in the organisation had a score of 3.85. The lowest score of 3.74 was for competitors' strategic actions quickly circulated in the organisation. Though this score is low compared to the other scores in this category but standalone even this figure is implying that respondents agree to it.

## 6. About the Companies

The companies chosen for the study were listed on the Bombay Stock Exchange which is the biggest stock exchange of the country. Four companies surveyed out of the list of eight companies were a part of the 2014 Global MAKE (Most Admired Knowledge Enterprises). Out of these four, three companies have been listed in the MAKE hall of fame in 2014 which means that they have been Global MAKE Finalists in each of the past five annual studies. Out of the list of four companies, two have also won MAKE 2014 award (2014 Global MAKE report). This itself speaks of the robust quality of KM in these organisations. The Global MAKE organisation also claims that the benefits of KM implementation are tangible and significant. "The MAKE winners trading on the New York Stock Exchange/ NASDAQ showed a Total Return to Shareholders (TRS) for the ten year period 2004-2013 of 21.3% - 2.1 times

the average Fortune 500 company median. The Return on Revenues (ROR) was 15.8% -2.5 times of the Fortune 500 ROR median” (2014 Global MAKE report). ROR is a measure of efficiency. These indices further hint that KM does have an impact on the financial performance.

## 7. Conclusion

Out of the different practices which were evaluated amongst the employees, the initiatives for knowledge acquisition, documentation and application were found to be more popular than knowledge transfer and sharing. Employees felt that KM has an impact on the financial performance but they did not rate it very high in their responses. A possible reason could be that either the employees felt that their organisation could do even better or they were not sufficiently aware of all the financial benefits which were accruing to the business. The latter could be true with employees at the entry level or with lesser years of experience who may not understand the financial implications fully. Nevertheless personal interviews with senior level managers revealed that they were optimistic about KM bringing positive impact on their financial performance. Almost all the respondents were optimistic about KM and its impact on efficiency. They felt that operational issues like resolving of customer queries, robust marketing functions, introducing new technological developments, agility to change and fighting competition were all possible due to KM. Firms use KM to improve their financial performance, keep ahead of competition by introducing new products/technologies and keep innovating using the existing knowledge for long term sustainability. The study rejects the findings of previous researchers who suggested that KM does not have an impact on financial performance. The study can be extended by mapping the financials of these companies and seeing if the results converge or diverge with the perception study.

## 8. Limitations of the Study

The study has been done in India and covers selective sectors. The results could vary if a bigger sample size is taken.

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