### CHAPTER 6

**SUMMARY, FINDINGS, RECOMMENDATIONS AND CONCLUSION**

<table>
<thead>
<tr>
<th>Para. No.</th>
<th>Particulars</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Summary of Procedures</td>
<td>211</td>
</tr>
<tr>
<td>6.2</td>
<td>Findings of the Study</td>
<td>213</td>
</tr>
<tr>
<td>6.2.1</td>
<td>Objectives 1 and 2: Identification &amp; Categorisation of Competencies</td>
<td>213</td>
</tr>
<tr>
<td>6.2.2</td>
<td>Objective 3: Impact of Competencies on Financial Performance of MSMEs</td>
<td>214</td>
</tr>
<tr>
<td>6.3</td>
<td>Objective 4 : Recommendations from the Study</td>
<td>224</td>
</tr>
<tr>
<td>6.3.1</td>
<td>HRM Initiatives for MSMEs</td>
<td>224</td>
</tr>
<tr>
<td>6.3.2</td>
<td>Focus on Competency Management in MSMEs</td>
<td>225</td>
</tr>
<tr>
<td>6.3.3</td>
<td>Networking Emphasis in Marketing in MSMEs</td>
<td>225</td>
</tr>
<tr>
<td>6.3.4</td>
<td>Encouragement for Cluster Development Approach in MSMEs</td>
<td>226</td>
</tr>
<tr>
<td>6.3.5</td>
<td>Promotion of LMCS of NMCP in MSMEs</td>
<td>226</td>
</tr>
<tr>
<td>6.3.6</td>
<td>Competency based Training in MSMEs</td>
<td>227</td>
</tr>
<tr>
<td>6.3.7</td>
<td>Entrepreneurship Development Initiatives in MSMEs</td>
<td>227</td>
</tr>
<tr>
<td>6.3.8</td>
<td>Improved Recruitment Procedures in MSMEs</td>
<td>229</td>
</tr>
<tr>
<td>6.3.9</td>
<td>Quality Management in MSMEs</td>
<td>230</td>
</tr>
<tr>
<td>6.4</td>
<td>Conclusion</td>
<td>231</td>
</tr>
</tbody>
</table>
CHAPTER 6

SUMMARY, FINDINGS, RECOMMENDATIONS AND CONCLUSION

Being the second-largest employer after agricultural sector in the country, MSMEs play a critical role for the national objectives of growth with equity and inclusion. However, the performance of MSMEs in India is seriously affected due to lack of competent manpower as brought out in the PMs TF Report on MSMEs (2010). For several years competency management has been suggested as a way to more effectively utilise employee skills in the corporate workplace. The concept of competency-based human resources has gone from a new technique to a common practice in the 40 years since David McClelland (1973) first proposed them as a critical differentiator of performance. Today, almost every organization with more than 300 people uses some form of competency-based human resource management (Boyatzis 2009). The overall objective of this study was to investigate whether higher level of employee competencies could drive the financial performance of MSMEs, and in the process identifying which ones and to what extent. A summary of the work done and the findings and conclusions derived from this study are presented in this chapter.

6.1 Summary of Procedures

The researcher had laid down following objectives for the study:

i. To identify all possible employee competencies that could cause greater profitability in the MSMEs.

ii. To categorise these competencies under the three employee competency factors of core, functional and leadership categories.

iii. To find out to what extent these employee competency factors and their constituent competencies contribute to greater profitability of the MSMEs.

iv. To suggest measures for enhancing profitability of MSMEs through better utilization of employee competency factors.

Besides, it was also endeavoured to explore a little beyond these objectives and collect data that could be of some use in further studies on the subject.
Review of existing literature on the subject, discussion with industry experts and academicians enabled the investigator to formulate following hypotheses for the study:

i **Hypothesis 1 (H1):** MSMEs with higher competency levels have greater profitability. Employee competency factors as a whole have been considered as the independent variable for the first hypothesis statement. Intention of *Hypothesis 1* is to establish the superior relationship between ‘higher levels of competencies’ and ‘profitability’ of MSMEs.

ii **Hypothesis 2 (H2):** Value based organisational core competencies have greater impact than functional or leadership competencies on the profitability of MSMEs. Intention of the second hypothesis is to establish the superior relationship between ‘value based organisational core competencies’ and ‘profitability’ of MSMEs, as compared to the other types of employee competency factors.

iii **Hypothesis 3 (H3):** Quality consciousness is the most important value based organisational core competency for yielding higher profitability of MSMEs. Intention of Hypothesis 3 is to establish superior relationship between ‘quality consciousness’ and ‘profitability’ as compared to the other organisational core competencies.

iv **Hypothesis 4 (H4):** Planning and organising ability is the most important leadership competency for yielding higher profitability of MSMEs. Intention of Hypothesis 4 is to establish the superior relationship between ‘planning and organising ability’ and ‘profitability’ as compared to the other leadership competencies.

v **Hypothesis 5 (H5):** Training and development of employees in skills and competencies yield higher profitability of MSMEs. Intention of Hypothesis 5 is to establish the superior relationship between ‘training of employees in skills and competencies’ and ‘profitability’.

Being a descriptive study, survey method was adopted to identify the employee competencies and their effects on the financial performance of MSMEs. 108 MSMEs from MIDC PCMC area in Pune belonging to the automotive industry were randomly selected from *six strata using proportionate stratified sampling* technique. 100 sample
units responded with a response rate of 92.6%. The data was collected by a likert scale based questionnaire administered by the researcher himself to all the respondents. The questionnaire had been tested on a pilot sample of 20 respondents. The quantitative data collected was tabulated using MS Excel and subjected to data analysis using SPSS 17.0 version. The data was initially analysed for its basic statistical measures like the mean, median, standard deviation, standard error of mean, skewness and kurtosis. These indicated that the data was non-normal and should undergo non-parametric tests. The data was then checked for its reliability using the Cronbach Alpha test. Thereafter, it was subjected to hypothesis testing using the non-parametric tests of Kolmogorov Smirnov test for normality, Spearman’s Correlation test for determining correlations, One-sample Chi-Square test and Friedman One-way ANOVA for testing H1 to H5, and Mann-Whitney Rank-Sum U test for testing H1 and H5. Logistic Regression test was implemented to test H2, H3 and H4. Logistic Regression test was also done to confirm H1 for the overall Competency level with covariates as the extraneous variables of Size and Type of business, Attrition level and Hiring of Qualified Managers. It was also subjected to Factor Analysis test to reduce the dimensions if feasible, and identify loadings of the various employee competencies, so that useful lessons could be derived. Finally, Causal Path Analysis using non-parametric Partial Coefficients and ‘Organisation Size’ and ‘Type of Industry’ as control variables was implemented to confirm the test results.

6.2 Findings of the Study

The findings from the various analyses are given in the following sub-paragraphs.

6.2.1 Objectives 1 and 2: Identification & Categorisation of Competencies

15 relevant employee competencies were selected. Literature review showed a list of 553 competency headings, which could be condensed to 23 competencies based on a Job Competences Survey in 1986 and subsequent research in Hevley Management College (Dulewicz and Fletcher 1982). Bersin (2007) grouped them under the three heads of organisational, leadership and functional. After review of the complete list of 23 competencies and consultation with the guide Dr JK Datagupta, MSME expert Mr M.K. Nag MD K.K. Nag Ltd (MSME advisor to CII Pune Chapter) and five prominent SME owners, 15 employee competencies were categorised as follows:-
i. **Value-based Organisational Core competencies:** Six competencies viz. *Quality consciousness*, Customer focus, Cost consciousness, Healthy work environment/Safety norms, Team spirit, and Creativity/Innovativeness.

ii. **Leadership competencies:** Five competencies viz. Strategic thinking, Interpersonal skills, *Planning and Organising capability*, Decision-making, and Problem-solving ability.

iii. **Functional competencies:** Four competencies viz. Technical skills, Approach towards learning and self-development, *Adaptability to new technology and change*, and Availability of Specialised skills.

**6.2.2 Objective 3: Impact of Competencies on Financial Performance of MSMEs**

Financial performance of MSMEs could be measured either by profitability (return on investments) or growth in revenue. ‘Profitability’ was the term most MSME owners inherently considered as an indicator of financial performance. Accordingly, the researcher adopted Profitability as the dependent variable, so that a simple relationship could be effectively established in the research findings.

**6.2.2.1 H1: Impact of Overall Competency Level and Extraneous Variables**

*H1* was strongly validated by the finding that higher ‘competency levels’ enhanced ‘profitability’ of MSMEs. This confirmed the findings of other researchers like Bersin (2007) and Ryan et al. (2012). It was tested by analysing the responses to Questions 12 and 13 of the Questionnaire. High values of Spearman’s correlation coefficient, *U* statistic of Mann-Whitney Rank-Sum *U* test, chi-square values of One-sample Chi-Square test with strong significance below 0.01 level established a robust and positive relationship between the ‘overall competency level’ and ‘profitability’ in MSMEs.

The data was also subjected to Logistic Regression Analysis with Profitability (Question 12) as dependent variable and Overall competency level (Question 13), Size of business (Question 7), Type of business (Question 8), Attrition level (Question 11) and Hiring of Qualified Managers (Question 20) as independent variables. Only *Overall Competency level* was selected in the regression equation with a positive weighting (*B*) value of 20.308 (refer Table 5.28 B), and the Nagelkerke *R Square* (refer Table 5.28 A) indicated an impact of 66.4% on Profitability. All other extraneous variables were excluded from the equation with very high significance values, indicating negligible impact on Profitability. Causal Path Analysis using
ordinal partial coefficient value of 0.444 between ‘Overall competency level’ and ‘Profitability’, and ‘Type’ and ‘Size of business’ as control variables, confirmed this hypothesis. Establishment of this positive relationship set the stage for other hypotheses dealing with specific competencies and their impact on profitability of MSMEs.

6.2.2.2 H2: Impact of Core Competency Factor  
H2 was strongly validated by the finding that ‘value based organisational core competencies’ have greater impact than functional or leadership competencies on the profitability of MSMEs. This was tested by analysing the responses to Questions 12 and 14, where the impact of the three competency factors of Value-based organisational core competencies, Leadership competencies and Functional competencies on Profitability of MSMEs were analysed using Logistic Regression Analysis, along-with analyses of basic statistical measures, Spearman’s correlations test, One-sample Chi-Square test and Friedman one-way ANOVA test. Mean value of Core competencies was 4.27 which was higher than 3.95 and 4.14 of Functional and Leadership competencies respectively. One-sample Chi-Square test showed that there was a significant difference between observed and expected frequencies for Core competencies. Friedman One-way ANOVA showed that Core competencies had a higher mean rank of 2.21 against 1.77 and 2.02 of the other two factors. Causal Path Analysis also confirmed this finding by establishing a partial correlation coefficient of 0.406 as against 0.179 for the other two competency factors. Logistic Regression Analysis indicated that only ‘Value-based organisational Core competencies’ was included in the equation and the Nagelkerke R Square (refer Table 5.16 C) showed an impact of 41.5% on the variance of profitability. ‘Value-based organisational Core competencies’ was the only predictor variable included in the regression equation with a positive weighting (B) value of 3.251 (refer Table 5.16 G). The regression equation could be represented as given below:

\[
\text{Profitability increase (probability of the event occurring as } X) = -9.072 \text{ (constant)} + 3.251 \text{ (core competencies)}.
\]

Prahalad and Hamel (1990 and 1994) had been the leading exponents of Core competencies as the key differentiator for enterprises. (Hamel and Prahalad 1994 pp.221 – 227) have advocated the single-minded pursuit of ‘core competence’ of an
organisation to maintain its competitive advantage over its competitors. They had considered that to be considered a core competence, a skill should have competitive uniqueness and not be ubiquitous across an industry, nor should it be easily imitated by competitors to graduate as a competence. Hamel and Prahalad’s strict parameters of core competence identification have been recognised as extremely relevant for strategic planning of large enterprises all over the world.

However this study being of the MSME sector, whose scale of operations are at a lower level, the researcher has identified core competencies with flexible and generalised considerations as suggested by Bersin (2007). The latter hypothesised that high-performance organizations value competencies that build organizational capabilities while lower-performing organizations focus on competencies that build individual capabilities. He elaborated on these further as a small set of “core competencies” which are developed and approved by top management of many organisations. These competencies take the form of values or behaviours, which can be applied to any person in any job. They represent the company’s “inner core” and often do not change much from year to year. This definition varies from Hamel and Prahalad’s strict definition of ‘core competence’ as a strategic planning measure of large enterprises.

6.2.2.3 H3: Impact of Quality Consciousness Core Competency  H3 was strongly validated by the finding that Quality Consciousness is the most important value based organisational core competency for yielding higher profitability of MSMEs. This was tested by analysing the responses to Questions 12 and 16, where the impact of the six core competencies of Quality consciousness, Customer focus, Cost consciousness, Healthy work environment/safety norms, Team spirit, and Creativity/Innovativeness on Profitability of MSMEs were analysed using Logistic Regression Analysis along-with basic statistical measures, Spearman’s correlations, One-sample Chi-Square test and Friedman one-way ANOVA test. Mean value of Quality Consciousness was 4.49 which was the highest amongst all 15 competencies. Spearman’s correlation coefficient of 0.263 with 0.008 significance was also the highest amongst all six core competencies. One-sample Chi-Square test showed that there was a significant difference between observed and expected frequencies for Quality Consciousness. Friedman One-way ANOVA showed that Quality Consciousness had the highest
mean rank of 4.70 amongst all six core competencies. Customer focus with a mean rank of 4.15 and Team spirit with a mean rank of 3.86 were the next two core competencies with significant impact on profitability. Healthy work environment/Safety norms was assessed as the weakest competency with lowest mean rank of 2.45 and lowest mean value as well. Causal Path Analysis also confirmed this finding with Quality Consciousness having a partial correlation coefficient of 0.359, which was the highest amongst all core competencies. Logistic Regression Analysis indicated that Quality Consciousness and Creativity / Innovativeness were the two predictor variables included in the regression equation and the Nagelkerke R Square (refer Table 5.20 C) showed an impact of 36.8% on the variance of profitability. ‘Quality Consciousness’ had a much larger weighting (B) value of 1.560 as against 1.069 for ‘Innovativeness’ (refer Table 5.20 G). The regression equation could be represented as given below:

\[
\text{Profitability increase (probability of the event occurring as X)} = -6.659\ \text{(constant)} + 1.560\ \text{(Quality consciousness)} + 1.069\ \text{(Creativity / Innovativeness)}.
\]

Quality Consciousness has been advocated by a very large number of researchers as a driver of business performance e.g. CII Deloitte Survey (2008), Bersin (2007), Hamel and Prahalad (1994), Oakland (2004), Errin (2004), Singh et al. (2004), Lal (2002), Briscoe et al. (2005) to name just a few. The study has unambiguously thrown up the predominance of this competency for the MSMEs studied in this sample. MSME owner managers expressed that in the current market scenario, quality of product was the minimum essential prerequisite for customer satisfaction, and there could be no compromise on this aspect. Some respondents graded Quality as another hygiene factor along-with Customer focus and Cost competitiveness. Accordingly, most MSMEs have been undergoing 6 SIGMA and Total Quality Management (TQM) courses run by government agencies like DIC and trade bodies like CII and MCCIA. QMS organised by NMCP, as well as lean management initiatives have been gaining popularity in recent years. Bersin (2007) had specified three more core competencies: Customer focus, Team spirit and Innovativeness for driving business performance. In this study also the mean values and mean ranks of Friedman ANOVA tests have brought out that Customer focus and
Team spirit were the next two competencies in their order of impact. Interestingly, Factor analysis of Core competencies had also grouped these two competencies with Quality consciousness in the same component based on their factor loadings, which together contributed almost 40% to the variance of profitability. It could therefore be concluded that while promoting Quality Consciousness in their employees, enterprises should also focus on Customer focus and Team spirit to derive maximum dividends from their effort.

The third core competency Innovativeness had low values of the arithmetic mean and mean rank of Friedman ANOVA test, but its Spearman’s correlation coefficient was the next significant core competency after Quality consciousness. Discussion with respondents had brought out that in their type of business, where operations were highly mechanistic, and workers were not equipped with sophisticated skills, creativity was neither feasible nor really required. However, almost all of them valued innovativeness in terms of making incremental improvement in their manufacturing processes, also colloquially known as the ‘jugaad’ mentality in India. Factor analysis had shown that the balance three core competencies of Innovativeness, Cost consciousness and Healthy work environment / Safety norms were grouped together in the second component based on their factor loadings and contributed about 16% to profitability. It could be argued that although these competencies had not been highly rated by the respondents, they too should be pursued by MSMEs for maximising their financial performance, but with a lower priority than the first component.

6.2.2.4 H4 : Impact of Planning and Organising Leadership Competency  
H4 was supported by the finding that Planning and organising ability is the most important leadership competency for yielding higher profitability of MSMEs. This was tested by analysing the responses to Questions 12 and 17, where the impact of the five leadership competencies of Strategic thinking, Interpersonal skills, Planning and Organising capability, Decision-making and Problem-solving ability on Profitability of MSMEs were analysed using Logistic Regression Analysis along-with basic statistical measures, Spearman’s correlations, One-sample Chi-Square test and Friedman one-way ANOVA test. Mean value of Planning and Organising capability was 4.30 which was the highest amongst the five leadership competencies. Its
Spearman’s correlation coefficient of 0.211 with 0.035 significance was also the most significant amongst all five leadership competencies. One-sample Chi-Square test showed that there was a significant difference between observed and expected frequencies for Planning and Organising capability. Friedman One-way ANOVA showed that Planning and Organising capability had the highest mean rank of 3.28 amongst all five leadership competencies. Decision-making with a mean rank of 3.05 and Problem-solving with 3.02 were the next two leadership competencies with significant impact on profitability. Causal Path Analysis also confirmed this finding by establishing the highest partial correlation value for Planning and Organising ability amongst all five leadership competencies. Logistic Regression Analysis indicated that ‘Planning and Organising capability’ was the only leadership competency included in the equation and the Nagelkerke R Square (refer Table 5.24 C) showed an impact of 15% on the variance of profitability. ‘Planning and Organising capability’ was the only predictor variable included in the regression equation with the positive weighting (B) value of 1.409 (refer Table 5.24 G). The regression equation could be represented as given below:

\[
\text{Profitability increase (probability of the event occurring as } X) = -2.682 \text{ (constant)} + 1.409 \text{ (Planning and Organising capability)}.
\]

‘Planning and organising capability’ inevitably merits its dominant status among leadership / managerial competencies as it encompasses the two vital functions of management i.e. ‘planning’ and ‘organising’. Satyanarayan and Mishra (2001) identified chronic sickness among SSIs primarily due to inadequate application of ‘planning’. Yusuf and Saffu (2005) experienced that in the manufacturing sector ‘planning’ affected performance equally in both large and small firms in their study. Present study has shown that ‘Planning and Organising capability’ is considered as one of the inherent functions of the owners / managers of MSMEs. However, as brought out by the Factor analysis test of leadership competencies, all the specified leadership competencies grouped as one factor needed to be pursued together for improved performance of MSMEs. Bersin (2007) too had brought out the importance of all five competencies as important drivers of financial performance of enterprises.
6.2.2.5 H5: Impact of Training in Competency Development of Employees  

H5 was validated by the finding that Training and development of employees in skills and competencies yield higher profitability of MSMEs. This was tested by analysing the responses to Questions 12 and 18 of the Questionnaire. High values of Spearman’s correlation coefficient, U statistic of Mann-Whitney Rank-Sum U test, chi-square values of One-sample Chi-Square test with strong significance below 0.01 level established a robust and positive relationship between ‘training’ and ‘profitability’ in MSMEs. Causal Path Analysis also confirmed this finding.

There have been a large body of researchers who have already established the strongly positive relationship between ‘training’ and enterprise ‘performance’ both in large and small enterprises e.g. Bassi et al. (2002), Chang and Chen (2002), Wong et al. (1997) and Lahiri and Shah (2012). During the course of informal interaction with respondents as well as from data collected from the open-ended Question 21 of Questionnaire, the researcher has the following additional observations regarding training in MSMEs:

i. MSMEs primarily depend on in-house informal on-the-job training (OJT) for training their employees, and nurture a cynical distrust for external private agencies due to their predominant commercial interest and low cost effectiveness. This agrees with the findings of Gulati (1997), Dagar (1993), Greenidge et al. (2012), Jones (2006), Smith et al. (2003) and Freel (1999).

ii. MSME owner managers are too pre-occupied with their day-to-day struggle for survival leaving them little time or inclination for imparting meaningful organised training for their employees. They lack resources such as time and money, as well as management expertise. This agrees with Bersin (2007), and Routray and Bag (2010).

iii. Diploma training provided by the academic institutions i.e. Industrial Training Institutes (ITIs) does not match business requirements of MSMEs.

iv. Hardly any employees received apprenticeship training, due to the owner’s apprehensions about the Apprentices Act of GOI.
v. Institutional training by government agencies like DIC was hardly available for development of technical skills of employees. This agrees with similar findings of Dagar (1993).

vi. Most of the owner-managers had to learn by trial and error method alone, without exposure to formal training in business schools or elsewhere.

vii. The owner-manager’s personality mattered most in implementation of meaningful training for their employees. Natural workplace learning guided by appropriately qualified mentors, supplemented by informal networking with customers, employees and other stakeholders offer maximum returns. This agrees with the findings of Morrison and Seers (2002) in Australian SMEs.

viii. MSME owners were interested in skills development and training opportunities, provided that they were directly applicable to the current situation in their business, and as long as the delivery process was carefully structured in terms of location, time of day, and length of session. This agreed with the findings of Walker et al. (2007).

ix. MSME owners were apprehensive about providing training to their employees beyond an elementary level as the latter were likely to migrate to larger enterprises who could pay better compensation levels.

6.2.2.6 Impact of Functional Competencies This was tested by analysing the responses to Questions 12 and 15, where the impact of the four functional competencies of Technical skills, Approach towards learning and self-development, Adaptability to new technology and change, and Availability of Specialised skills on Profitability of MSMEs were analysed using Logistic Regression Analysis along-with basic statistical measures, Spearman’s correlations, One-sample Chi-Square test and Friedman one-way ANOVA test. ‘Adaptability to new technology and change’ was the most significant among the four functional competencies. Causal Path Analysis also confirmed this finding. Logistic Regression Analysis indicated that ‘Adaptability to new technology and change’ was the only functional competency included in the equation with a positive weighting (B) value of 2.289 (refer Table 5.27 G), and the Nagelkerke R Square (refer Table 5.27 C) showed an impact of 42.3% on the variance of profitability. The logistic regression equation could be presented as follows:
Present study has shown that Adaptability to new technology and change was the most important functional competency. However, as brought out by the Factor analysis test on functional competencies, all four functional competencies grouped as one factor needed to be pursued together for improved performance of MSMEs.

6.2.2.7 Summary of Findings

Summary of findings with regard to the five hypotheses has been briefly listed in Table 6.1 below.

Table 6.1: Summary of Findings on Hypotheses Tests (H1 to H5)

(Questions 7, 8, 11, 12 – 18)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Hypothesis</th>
<th>Statistical Tests and their Results</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>H1: MSMEs with higher competency levels will have greater profitability.</td>
<td>High values of Spearman’s correlation coefficient, U statistic of Mann-Whitney Rank-Sum U test, chi-square values of One-sample Chi-Square test with strong significance below 0.01 level established a robust and positive relationship between the overall competency level and profitability in MSMEs. Logistic regression test with extraneous variables of size, type of business, attrition level and hiring of qualified managers as covariates of overall competency level showed only competency level included in the regression equation with 66.4% impact on profitability.</td>
<td>H1 validated (confirmed by Causal Path Analysis).</td>
</tr>
</tbody>
</table>

Profitability increase (probability of the event occurring as X) = - 3.860 (constant) + 2.289 (Adaptability to new Technology & Change).
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Hypothesis</th>
<th>Statistical Tests and their Results</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td><strong>H2</strong>: Value based organisational core competencies will have greater impact than functional or leadership competencies on the profitability of MSMEs.</td>
<td>Impact of the three competency factors of Value-based organisational core competencies, Leadership competencies and Functional competencies on Profitability of MSMEs were analysed using Logistic Regression Analysis. Only value-based organisational Core competencies was included in the equation and the Nagelkerke R Square showed an impact of 41.5% on the variance of profitability. Profitability increase (probability of the event occurring as X) = - 9.072 (constant) + 3.251 (core competencies).</td>
<td>H2 validated (confirmed by Causal Path Analysis).</td>
</tr>
<tr>
<td>3.</td>
<td><strong>H3</strong>: Quality consciousness is the most important value based organisational core competency for yielding higher profitability of MSMEs.</td>
<td>Impacts of the six core competencies of Quality consciousness, Customer focus, Cost consciousness, Healthy work environment/safety norms, Team spirit, and Creativity / Innovativeness on Profitability of MSMEs were analysed using Logistic Regression Analysis. Quality Consciousness and Creativity / Innovativeness were included in the equation and the Nagelkerke R Square showed an impact of 36.8% on the variance of profitability. Quality Consciousness had a much larger B value of 1.560 as against 1.069 for Innovativeness. Profitability increase (probability of the event occurring as X) = - 6.659 (constant) + 1.560 (Quality consciousness) + 1.069 (Creativity / Innovativeness).</td>
<td>H3 validated (confirmed by Causal Path Analysis).</td>
</tr>
</tbody>
</table>
### S. No. Hypothesis | Statistical Tests and their Results | Finding
--- | --- | ---
4. **H4:** Planning and organising ability is the most important leadership competency for yielding higher profitability of MSMEs. | Impact of the five leadership competencies of Strategic thinking, Interpersonal skills, Planning and Organising capability, Decision-making and Problem-solving ability on Profitability of MSMEs were analysed using Logistic Regression Analysis. Planning and Organising capability was the only leadership competency included in the equation and the Nagelkerke R Square showed an impact of 15% on the variance of profitability. Profitability increase (probability of the event occurring as X) = -2.682 (constant) + 1.409 (Planning and Organising capability). | H4 validated (confirmed by Causal Path Analysis). |
5. **H5:** Training and development of employees in skills and competencies yield higher profitability of MSMEs. | High values of Spearman’s correlation coefficient, U statistic of Mann-Whitney Rank-Sum U test, chi-square values of One-sample Chi-Square test with strong significance below 0.01 level established a robust and positive relationship between training and profitability in MSMEs. | H5 validated (confirmed by Causal Path Analysis). |

### 6.3 Objective 4: Recommendations from the Study

Some suggestions for improvement of the existing system in MSME sector have emerged from the research findings given above.

#### 6.3.1 HRM Initiatives in MSMEs

HRM which includes competency management is generally not given its due importance by most MSMEs (although medium enterprises did show a higher level of managerial support for this crucial activity) as amply evident by their response to Question 19, where HRM was rated
lowest amongst all management activities. It is essential that MSME owners be exposed to entrepreneurial programmes conducted by the GOI or industry bodies which could highlight the benefits of adopting best HR practices for all enterprises. Retention of good talent is as vital as appointing it. Capable employees with talent can be retained only by adoption of the best HR practices. An employee’s job satisfaction is mainly determined by growth opportunities, and independence in decision-making.

6.3.2 Focus on Competency Management in MSMEs HRM even when practised by the owner manager (as is usual in MSMEs) needs to focus on competency management to deliver higher returns. Competencies were designed to provide organisations with focus, which leads to improvement and continuous learning of employees on the job (McClelland 1980). The enterprise-wide competency model should be kept simple as its basically a means to achieve the purpose of building a high-performance, robust and sustainable organisation (Bersin 2007). The enterprise’s competencies should be reinforced through every process and behaviour in the establishment. Owner managers and other managers in leadership positions should exemplify their competencies by virtue of what they speak, how they behave, and how quality is appreciated. HR processes for performance management need to be streamlined towards following the enterprise’s business strategy. Competencies form the focal point of the enterprise management within the wide spectrum of management processes. They enable the enterprises to appreciate specifically where to concentrate their resources in terms of their incentives, mentoring, training and development initiatives. Enterprises can ensure ideal strategic management of their manpower by clearly recognizing the correct competencies. For this purpose all enterprises should prepare competency frameworks, competency profiles and competency maps to design and implement HR processes aligned with the business of the organisation.

6.3.3 Networking Emphasis in Marketing in MSMEs Answer to Question 19 of the Questionnaire highlighted that majority of MSMEs felt that Marketing was the most important management activity for enhancing their profitability. Carson and Gilmore (2000) have argued that SMEs need to focus on SME marketing competencies for better returns. Gilmore et al. (2005) have also contended that successful SME owner managers had unconsciously adopted their networking skills for marketing their products. Any HRM initiative to be successful in the MSME sector must align itself with the owner managers’ quest for marketing skills and leverage on networking
in a systematic manner. Network building is invariably one of the key success determinants of an organisation (Panigrahi, 2010). In the present scenario, networking among various enterprises, institutions and service providers has become essential for sustainable existence and growth of the enterprises. Networking in a broad sense may imply establishment of inter-dependent linkages with other enterprises, which may comprise of a few enterprises working together for mutual gains e.g. reaping benefits of economies of scale in marketing or raw material purchase.

6.3.4 Encouragement for Cluster Development Approach in MSMEs

*Institutional support* is being provided by various government agencies for *cluster development approach* which allows MSMEs to become more competitive if they function together in a collective manner so that they complement each other, share common capacities and services, support undertakings comprising of cooperative sourcing and marketing, and even share innovative products and processes. But, it is essential that the clusters are advanced by consolidation of relationships and establishment of value chains. This can be accomplished by encouragement for inter-enterprise connections, establishing skill centres and work forces specifically tailor-made for the clusters, reinforcing associations with co-located suppliers, and expediting better collaboration among all cluster-participants. The most fruitful Government endeavour is likely to be *‘networking’ services and institutional experiences between clusters* both within India and between Indian and overseas small enterprise clusters (Gulati, 1997).

6.3.5 Promotion of LMCS of NMCP in MSMEs

Institutional support is also being provided by the MSME Ministry, Government of India for technological support through the *National Manufacturing Competitiveness Programme (NMCP)* for developing global competitiveness among Indian MSMEs. NMCP consists of 10 modules which are directed towards improving the complete MSME sector value chain. *Lean Manufacturing Competitiveness Scheme (LMCS)* is the most crucial and its sole purpose is to improve MSME productivity and competitiveness through a Public Private Partnership (PPP) mode by decreasing manufacturing waste. The Scheme envisions a number of major programmes which include activities like Visual Control, 5S (Sigma), Total Productive Maintenance (TPM), Standard Operation Procedures (SOPs), Just-in-Time (JIT), Kanban System, Cellular Layout, Poka Yoke etc. Pilot projects have already been implemented with overall favourable results.
LMCS needs to be implemented vigorously throughout the MSME sector leveraging the natural advantages accrued due to adoption of the cluster development approach. MSMEs also must enthusiastically adopt this scheme for enhancing profitability of their enterprises. HRM of MSMEs should play a critical role in facilitating this advantage by complementing it with their competency management initiative.

6.3.6 Competency based Training in MSMEs

The benefits of competency management have been accepted in principle by most MSME owners, as brought out in this study. However, the latter professed that very little was being done by the enterprises themselves to improve their employee competencies mainly due to two reasons: firstly because of non-availability of properly skilled manpower during recruitment, and secondly because of their rapid turnover. It is imperative that properly skilled manpower be made available in the market, for which the present government’s National Skill Development initiatives should show a marked improvement in the coming years. Simultaneously, the Government should make it mandatory to recruit new entries through the Apprentices Act, but make pragmatic changes in the labour laws so that the MSME owners do not perceive these as interfering with their day-to-day functioning. It is also essential to find mechanisms to assist and upgrade in-house and on-the-job training by the MSMEs themselves for perceptible benefits to percolate to the vast MSME sector (Gulati, 1997 p.219).

Competency-based training activities are essential to build up the skills required for enterprise-wide competency management environment. These can be adopted only when competency framework and profile become the base for identifying the training needs at organisational, departmental, team and individual levels (Gupta, 2011). The training needs so identified are used for design and implementation of the training and development programmes. The same competency framework and profile are also useful in evaluation of the impact of the implemented training and development programmes. Associated guidance, counselling and mentoring activities would also be aligned to the same competency framework.

6.3.7 Entrepreneurship Development Initiatives in MSMEs

Entrepreneurship development is another critical area which would have significant impact on productivity and value addition of MSMEs. Government of Malaysia, through various institutional networks, and SME Corp established by the government, has been improving management and business practices of SMEs, especially in generating
economic value (Exim Bank Report, 2013). SME Corp had been actively involved in skills development programmes with the purpose of improving the capabilities and competencies of workers of SMEs at technical, supervisory and managerial levels. SME Corp finances 80% of the expenditure incurred by employers on training and development of their employees in recognized training centres. Government of Malaysia is also instituting training to its SMEs through collaboration with universities. Singapore also is supporting its SMEs by empowering them to compete more effectively with MNCs and large enterprises both within and outside Singapore. Under the Local Enterprise Association Development (LEAD) programme, Singapore government together with 14 industry associations are committed for industry capability development projects. Other initiatives by Government of Singapore include the International Business Fellowship (IBF) programme which will enable companies to train their employees in emerging markets allowing them to gain first-hand knowledge of the new business environment, and has set up an advisory portal where SMEs can seek advice from around 180 international experts for all their overseas expansion needs, extending from market setup to legal, tax and financial advice. Temtime and Pansiri (2006) in their study on SMEs in Botswana have stated that there is a requirement of developing low-cost training facilities of both operational and managerial skills, if governmental policies for small business promotion are to yield better results. Programs for vocational training should be customised for the small business sector, and external consultants from the local area should be used for this purpose.

Abdelsemed and Kindling (1978) have argued that even though training and development of employees is expensive for SMEs, the long-term benefits more than outweigh the expenses. Kaizen, a Japanese training philosophy of continuous improvement is ideally suited for small businesses attempting to make accumulated enrichment at low cost (Kinni, 1995), in place of adopting the re-engineering path which is likely to need heavy financial investment (Radharamanan et al., 1996). Exploitation of kaizen techniques could result in greater efficiencies and profitability of SMEs.

Government of India has also set up some initiatives under the NMCP like the programme for giving assistance for “Entrepreneurial and Managerial Development of
SMEs through Incubators”, but the resources allotted are miniscule in comparison to
the vast requirements of India’s MSME sector. India needs to emulate some of the
successful countries abroad in establishment of a strategy for entrepreneurship and
skill development that should not only be dependent on government agencies, but also
involve the private sector including NGOs and academic institutions. Large business
establishments that are sourcing from MSMEs for their requirements should also be
incentivised to come forward and provide valuable leadership for instilling business
education and management development programmes of MSMEs.

6.3.8 Improved Recruitment Procedures in MSMEs Too much dependence on
informal and personal methods of recruitment and selection of personnel are not
beneficial for SMEs (Dagar, 1993). Formal and scientific methods of competency
based recruitment practised by large and some of the high performance medium
enterprises should be forcefully adopted by all SMEs, though the Micro-enterprises
could be selective in adopting this process depending on the circumstances. Competency frameworks derived from roles should be used for all types of selection,
such as recruitment, assignment to projects, promotion etc. Organisation level value-
based core competencies should also be included in the selection criteria. Gate hiring
of casual workers on temporary basis should be to the minimum possible extent, as
these are unlikely to be chosen on the basis of competencies, and even if trained for
this purpose later after joining, are unlikely to remain in the enterprise after training.
Since the majority of SMEs lack knowledge about the scientific tools, techniques and
methods of selection, SME employers should obtain this expertise through
management development programmes (MDPs) organised by MSME-DIs and other
professional agencies.

All MSMEs in India should be brought under the Apprentices Act, which is
currently facilitating training in large and medium enterprises only (Salvekar, 2013).
Currently, Micro- and Small Enterprises (MSEs) are recruiting raw hands on low
wages and training them for a variety of jobs, but the latter after gaining the skill leave
their jobs for a better future in medium and large enterprises. This move
recommended by the Indian Labour Conference 45th Session held on 17th and 18th
May 2013, would allow MSEs to recruit trainees under the Apprentices Act as well as
provide them with an opportunity for tie-up with training institutes, thus in the
process creating an employable labour market.
6.3.9 Quality Management in MSMEs  Quality Consciousness, one of the six core competencies, has been assessed as the most significant enhancer of profitability of MSMEs in this study. Quality is a value based core competency which is often used to symbolise product or service excellence. Quality focus is one of the high priority organisational competencies that can be presumed to be a driver of higher profitability, as it ensures customer satisfaction and hence larger turnover of sales. (Gupta, 2011 p.25) has highlighted four basic assumptions for developing competency framework in organisations. These are Commitment for Excellence, Autonomy, Adequate budget and Competent HR managers. The first assumption ‘Commitment for excellence’ is fully based on an organisational commitment for quality of products and services that satisfies needs of all stakeholders. It is assumed that the organisation has quality policy, quality processes and rewards for quality in place. The employees especially need to practise scientifically designed quality processes. Oakland (2004) has argued for the predominant significance of Quality in all organisations in spite of a number of other management concepts which have captured the management professional’s attention in recent years, stating that the fundamentals of quality and its management are key to competing successfully. According to Oakland, quality could be simply defined as ‘delivering the customer requirement’ which provides a common language for improvement for people in different functional areas of an organisation. It facilitates interactive communication with a common goal amongst all employees with differing abilities and priorities, the rewards of which are greater efficiencies, lower costs, improved reputation and customer loyalty.

Medium enterprises already have to a reasonable extent institutionalised their quality processes through adoption of ISO standards. However, the Micro and Small Enterprises (MSEs) require to invest considerable effort and resources towards this purpose. Hence, it is recommended that all MSEs especially in the manufacturing sector, vigorously avail the benefits of Government of India MSME-DI NMCP scheme by exploiting the Quality Technology Tools (QTT) and Quality Management Standards (QMS) programmes for making the MSME manufacturing sector more competitive. The MSE sector could use this Programme for improving the quality of their products and for inculcating a sense of quality consciousness in their enterprises. Key undertakings of this Programme involve institution of applicable technical training modules for establishments like ITIs / Polytechnics, arranging awareness
drives for MSEs, organising Competition Watch (C-Watch), deployment of QMS and QTT in select MSEs, and following international study missions. The Government needs to allocate much greater resources to make a meaningful impact on the vast MSE sector.

6.4 Conclusion

A number of reports by Government agencies like the PMs TF Report (2010), as well as of trade bodies like the CII Deloitte Report (2008) have highlighted that Indian MSMEs have a serious problem due to non-availability of competent manpower. The researcher embarked upon this study with the aim of identifying which employee competencies could enhance the financial performance of MSMEs and to what extent. Accordingly, 15 employee competencies were identified and five hypotheses were formulated, assuming ‘profitability’ of MSMEs as the dependent variable. ‘Overall employee competency level’, ‘core competencies’, ‘quality consciousness’, ‘planning and organizing ability’ and ‘training provided by enterprises for competency development of employees’ were assumed as independent variables for testing of the five hypotheses. A survey was conducted of 100 MSME owner-managers in MIDC Bhosari, using proportionate stratified random sampling to cover all six types of industry in the automotive cluster of enterprises.

The survey data was analysed using SPSS 17.0 statistical package. All five hypotheses were supported. The study adequately showed that higher competencies would enhance profitability of MSMEs. It also supported the finding of Bersin (2007) that value-based organizational core competencies would be the most significant contributor out of the three competency factors: core, leadership and functional. It also indicated that ‘quality consciousness’ and ‘planning and organising ability’ were considered to be the most important ‘core’ and ‘leadership’ competencies respectively. ‘Training and employee competency development’ was also judged as a major enhancer of financial performance of MSMEs. These study findings could become the basis of further research studies on this subject, which could build up a strong motivation for our Government and other associated bodies to provide institutional support for bringing in competency-management in a comprehensive manner for rescuing our ailing MSME sector.
To conclude, MSMEs are the lowest layer of the enterprise system in any country (Mathew and Raju 2011). Being ‘bottom of the pyramid’, their potential also is understood to be substantial. The need for tapping this potential, therefore, becomes not only a business case, but a wider issue in the overall development agenda of all countries, including India as well. Competency management provides a low-cost route to improve the financial viability of this crucial sector of any economy. It is hoped that this study has contributed in some small way towards this greater purpose.