Findings and Conclusions
9.1 CHAPTER OVERVIEW

The aim of this chapter is to summarize the findings and outline the empirical results as well as setting the in the context of the study’s aim and objectives. This chapter focuses on findings from the data collected and analyzed from which conclusions are drawn. The conclusions are made on based on the hypothesis developed and applied the statistical test accordingly. In particular this chapter provides the findings based on primary data analysis. This chapter aims to summarize the findings and outline the results as well as setting them in the context of the study’s aims and objectives.

9.2 INTRODUCTION

New Product Development in Small Medium Size Enterprises can hardly be over emphasized. The emergence of New Product Development in Small and Medium Size Enterprise particularly in Developing Country like India is very essential. Since the New Product Development Processes bring about Key Success Factors that is Technological Factors, Marketing Factors, Commercial Factors and Managerial Factors (Jifeng Mu et.al. 2007) in each stage of New Product Development that is Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization.

In contemporary literature on New Product Development in SMEs, there is general belief is there that SMEs are back bone of any country weather developed or developing and play vital role in Innovation and contribute to Gross Domestic Product (GDP), Employment generation and rise in education level of the people. This study explore the detail of how Textile and Diamond SMEs engaged in NPD and up what
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extent they give importance to key success factors in each stage of the new product development.

This chapter attempts to summarize the results from the stands of empirical analysis conducted in the study and attempting to draw conclusion themes form the various sets of results. The objectives of the research outlined in Chapter 6 Research Methodology was to explore actual NPDP in Indian Textile and Diamond SMEs. The analysis included the importance of key success factors in each stage of NPDP and investigating association between Investment in Plant and Machinery (Size of The Firm) and key success factor in each stage of New Product Development Process (Technological Factors (8), Marketing Factors (8), Commercial Factors (8), Managerial Factors (8)) for Textile SMEs Surat, Diamond SMEs of Surat.

9.3 FINDINGS AND CONCLUSIONS AS PER OBJECTIVES FOR TEXTILE AND DIAMOND SMES:

9.3.1 To study the importance of Technological Factors in New Product Development Stage 1 Idea Generation and Concept Development Stage 2 Design and Development and Stage 3 Commercialization with respect to Textile and Diamond SMEs of Surat.

9.3.1.1 Findings and Conclusion for Textile SMEs

The aim of this study is to measure the extent of importance of technological factors in New Product Development Process of Textile, SMEs. To achieve this objectives the data is collected using structured questionnaire and distributed to Managerial level people like Managers, Owners, CEO, Partners to measure the extent of importance of technological factors in all three stage of New Product Development Process in Textile SMEs where 8 criteria were there to measure the extent of importance of technological factors in NPD on 5 Point Likert Scale where 1 is Not at all important and 5 represent Extremely important in stages Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. After collecting the data first check the reliability of the data using Cronbach’s Alpha for Technological Factors in each three stage of New Product Development Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and
Stage 3 Commercialization shows that the data is reliable for further test (see Point 7.7 in Chapter 7). After checking validity, applied normality of the data using most reliable test Kolmogorov-Smirnov and Shapiro-Wilk found that the data violate the normality and found that the data are not normally distributed for Stage 1 Idea Generation Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (See Point 7.8 in chapter 7). For that reason applied non-parametric test. In non-parametric first applied cross tabulation of Technological Factors with the Size of the Firm in all three stages (see Point 8.2 in Chapter 8).

Further to check the association between size of the firm and Technological Factors applied Chi-Square Test (see Point 8.4 in Chapter 8).

The results shows that the p-value of the factors the technology or product has a great market potential and the technology preference for open source over proprietary software factors p-values are less than significant level 0.05 in Stage 1, Stage 2 and Stage 3. Therefore, reject the null hypothesis and accept the alternative hypothesis. Based on the results it can be conclude that there is significant association between Size of the firm and the technology or product has a great market potential and the technology preference for open source over proprietary software in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

The factor the technology is new or significantly improved, the p-value is less than significant level 0.05 in Stage 1 and Stage 2. Therefore, reject the null hypothesis and accept the alternative hypothesis. Based on the results it can be conclude that there is significant association between Size of the firm and the technology is new or significantly improved in Stage 1 and Stage 2 of New Product Development Process. Whereas, the factor the technology is new or significantly improved, the p-value is greater than significant level 0.05 in Stage 3. Therefore, accept the null hypothesis and reject the alternative hypothesis. Based on the results it can be conclude that there is no significant association between Size of the firm and the technology is new or significantly improved in Stage 3 of New Product Development Process.

The factor the technology is reliable the p-value is less than significant level 0.05 in Stage 1 and Stage 3. Therefore, reject the null hypothesis and accept the
alternative hypothesis. Based on the results it can be conclude that there is significant association between Size of the firm and the technology is reliable in Stage 1 and Stage 3 of New Product Development Process. Whereas, the factor the technology is reliable, the p-value is greater than significant level 0.05 in Stage 2. Therefore, accept the null hypothesis and reject the alternative hypothesis. Based on the results it can be conclude that there is no significant association between Size of the firm and the technology is reliable in Stage 2 of New Product Development Process.

The factor the technology is not easy to be imitated the p-value is less than significant level 0.05 in Stage 3. Therefore, reject the null hypothesis and accept the alternative hypothesis. Based on the results it can be conclude that there is significant association between Size of the firm and the technology is not easy to be imitated in Stage 3 of New Product Development Process. Whereas, the factor the technology is not easy to be imitated, the p-value is greater than significant level 0.05 in Stage 1 and Stage 2. Therefore, accept the null hypothesis and reject the alternative hypothesis. Based on the results it can be conclude that there is no significant association between Size of the firm and the technology is not easy to be imitated in Stage 1 and Stage 2 of New Product Development Process.

The factors the technology is core or platform, the technology is complex, the technology is hard to be substituted, the p-value is greater than significant level 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Therefore, accept the null hypothesis and reject the alternative hypothesis. Based on the results it can be conclude that there is no significant association between size of the firm the technology is core or platform, the technology is complex, the technology is hard to be substituted in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

Mann Whitney U Test were used to test the importance of key success factors (see Point 8.4 in Chapter 8); the technology is new or significantly improved, the technology is core or platform, the technology is hard to be substituted, the technology is not easy to be imitated, and the technology or product has a great market potential found that their p-value is less than significant value 0.05. Hence, It can be concluded that the factors the technology is new or significantly improved, the technology is core or platform, the technology is hard to be substituted, the technology is not easy to be
imitated, and the technology or product has a great market potential are significantly important in all three Stages of New Product Development Process.

The factor the technology is reliable, found its p-value in Stage 1 and Stage 2 is greater than significant value 0.05. Hence, it can be concluded that that the factor the technology is reliable is not important in Stage 1 and Stage 2 of New product Development Process. Whereas, p-value in Stage 3 is less than significant value 0.05. Hence, it can be conclude that the factor the technology is reliable is significantly important in Stage 3 of New product Development Process.

The factor the technology preference for open source over proprietary software found that the p-value in Stage 1 and Stage 3 is greater than significant level 0.05. Hence, It can be concluded that the factor the technology preference for open source over proprietary software is not important in Stage 1 and Stage 3 of New Product Development Process. Whereas, in Stage 2 p-value is less than significant level 0.05. Hence, it can be conclude that the technology preference for open source over proprietary software is significantly important in Stage 2 of New Product Development Process.

The factor the technology is complex found its p value in Stage 1 Stage 2 and Stage 3 are greater than significant value. Hence it can be conclude that the factor technology is complex is significantly not important in Stage 1, Stage 2 and Stage 3 of New Product Development.

9.3.1.2 Findings and Conclusion for Diamond SMEs

The aim of this study is to measure the extent of importance of technological factors in New Product Development Process of Diamond SMEs. To achieve this objectives the data is collected using structured questionnaire and distributed to Managerial level people like Managers, Owners, CEO, Partners to measure the extent of importance of technological factors in all three stage of New Product Development Process in Diamond SMEs where 8 criteria were there to measure the extent of importance of technological factors in NPD on 5 Point Likert Scale where 1 is Not at all important and 5 represent Extremely important in stages Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3
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Commercialization. After collecting the data first check the reliability of the data Cronbach’s Alpha for Technological Factors (see Point 7.7 in Chapter 7) in each three stage of New Product Development Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization shows that the data is reliable for further test. After checking validity applied normality of the data using most reliable test Kolmogorov-Smirnova and Shapiro-Wilk found that the data violate the normality and found that the data are not normally distributed for Stage 1 Idea Generation Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (See Point 7.9 in chapter 7). For that reason applied non parametric test. In non-parametric first applied cross tabulation of Technological Factors with the Size of the Firm in all three stages of New Product Development Process (see Point 8.2 in Chapter 8).

Further to check the association between size of the firm and Technological Factors applied Chi-Square Test (see Point 8.4 in Chapter 8). The results shows that the factors the technology is new or significantly improved, the technology is reliable and the technology is complex, since the p-value is less than significance level 0.05. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the technology is new or significantly improved, the technology is reliable and the technology is complex in the Stage 1 of New Product Development Process. Whereas, the factors the technology is new or significantly improved, the technology is reliable and the technology is complex, since the p-value is greater than significance level 0.05. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the technology is new or significantly improved, the technology is reliable and the technology is complex in the Stage 2 and Stage 3 of New Product Development Process.

The factors the technology is core or platform, and the technology is not easy to be imitated since the p-value is less than significance level 0.05. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 3 of New Product Development. Based on the results it can be found that there is enough evidence to
suggest significant association between Size of the technology is core or platform, and the technology is not easy to be imitated in the Stage 3 of New Product Development Process. Whereas, the factors the technology is core or platform, and the technology is not easy to be imitated, since the p-value is greater than significance level 0.05. Therefore accept the null hypothesis and reject the alternative hypothesis in Stage 1 and Stage 2 of New Product Development. Based on the results it can be found that there is not enough evidence to suggest significant association between Size of the firm and the technology is core or platform, and the technology is not easy to be imitated in the Stage 1 and Stage 2 of New Product Development in Diamond SMEs.

The factor the technology preference for open source over proprietary software the p-value is less than significance level 0.05. Therefore reject the null hypothesis and accept the alternative hypothesis in Stage 2 of New Product Development. Based on the results it can be found that there is enough evidence to suggest the significant association between Sizes of the firm and the technology preference for open source over proprietary software in the Stage 2 of New Product Development Process. Whereas, the factors the technology preference for open source over proprietary software, since the p-value is greater than significance level therefore accept the null hypothesis and reject the alternative hypothesis in Stage 1 and Stage 3 of New Product Development. Based on the results it can be found that there is no enough evidence to suggest significant association between Size of the firm and the technology preference for open source over proprietary software in the Stage 1 and Stage 3 of New Product Development in Diamond SMEs.

Mann Whitney U Test were used to test the importance of the key success factors (see Point 8.4 in Chapter 8) the technology is new or significantly improved, found that p-value is less than significant value 0.05. Hence, it can be concluded that the factors the technology is new or significantly improved is significantly important in all three Stages of New Product Development Process.

The factors the technology is core or platform, and the technology is hard to be substituted found its p-value is less than significant value in Stage 2 and Stage 3. Hence, it can be conclude that the factor the technology is core or platform, and the technology is hard to be substituted in Stage 2 and Stage 3 is significantly important in New Product Development Process.
Development Process. Whereas, the factors factor the technology is core or platform, and the technology is hard to be substituted found its p-value is greater than significant value in Stage 1. Hence, it can be conclude that the factors the factors factor the technology is core or platform, and the technology is hard to be substituted is not important in Stage 1 of New Product Development Process.

The factor the technology is not easy to be imitated found its p-value is less than significant value 0.05 in Stage 1. Hence, it can be conclude that the factor the technology is not easy to be imitated in Stage 1 is significantly important. Whereas, factor the technology is not easy to be imitated found its p-value is greater than significant value 0.05 in Stage 2 and Stage 3. Hence, it can be conclude that the factor the technology is not easy to be imitated is not significantly important in Stage 2 and Stage 3 of New Product Development Process.

The factor the technology is complex found its p-value is less than significant value 0.05 in Stage 2. Hence, it can be conclude that the factor the technology is complex is significantly important in Stage 2 of New Product Development. Whereas, the factor the technology is complex found its p-value is greater than significant value 0.05 in Stage 1 and Stage 3. Hence, it can be conclude that the factor the technology is complex is not important in Stage 2 of New Product Development.

The factors the technology or product has a great market potential, and the technology preference for open source over proprietary software found its p-value is less than significant value 0.05 in Stage 3. Hence, it can be conclude that the technology or product has a great market potential, and the technology preference for open source over proprietary software is significantly important in Stage 3. Whereas the factors the technology or product has a great market potential, and the technology preference for open source over proprietary software found its p-value is greater than significant value 0.05 in Stage 1 and Stage 2. Hence, it can be conclude that the technology or product has a great market potential, and the technology preference for open source over proprietary software is not important in Stage 1 and Stage 2 of New Product Development.
9.3.2 To study the importance of Marketing Factors in New Product Development Stage 1 Idea Generation and Concept Development Stage 2 Design and Development and Stage 3 Commercialization with respect to Textile and Diamond SMEs of Surat.

9.3.2.1 Findings and Conclusion for Textile SMEs

The aim of this study is to measure the extent of importance of marketing factors in New Product Development Process of Textile, SMEs. To achieve this objectives the data is collected using structure questionnaire and distributed to Managerial level people like Managers, Owners, CEO, Partners to measure the extent of importance of marketing factors in all three stage of New Product Development Process in Textile SMEs where 8 criteria were there to measure the extent of importance of marketing factors in NPD on 5 Point Likert Scale where 1 is Not at all important and 5 represent Extremely important in Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. After collecting the data first check the reliability of the data Cronbach’s Alpha for Marketing Factors in each three stage of New Product Development Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (see Table 7.7 in Chapter 7) shows that the data is reliable for further test. After checking reliability, applied normality of the data using most reliable test Kolmogorov-Smirnova and Shapiro-Wilk found that the data violate the normality (see Point 7.8 in Chapter 7) and found that the data are not normally distributed for Stage1 Idea Generation Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. For that reason applied non parametric test. In non-parametric first applied cross tabulation of Marketing Factors with the Size of the Firm in all three stages (see Point 8.2 in Chapter 8).

Further to check the association between size of the firm and Marketing Factors applied Chi-Square Test (see Point 8.4 in Chapter 8). The results shows that the p-value of the product has competitive advantage is less than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is enough evidence to suggest
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significant association between Size of the firm and the product has competitive advantage in the Stage 1, stage 2 and stage 3 of New Product Development Process.

For the factor there is potential marketing channel plans, the p-value is less than significant level 0.05 in Stage 1 and Stage 2. Hence, reject the null hypothesis and accept the alternative hypothesis in all stage 1 and Stage 2 of New Product Development Process. Rather it can be found that there is enough evidence to suggest an association between sizes of the firm and there is potential marketing channel plans. Based on the results, it can be conclude that there is significant association was found between size of the firm and factors there is potential marketing channel plans in Stage 1 and Stage 2 of New Product Development Process. Whereas, the factor there is potential marketing channel plans, the p-value is greater than significant level 0.05 in Stage 3 of New Product Development Process. Hence, accept the null hypothesis and reject the alternative hypothesis in all stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest an association between sizes of the firm and there is potential marketing channel plans. Based on the results, it can be conclude that there is no significant association was found between size of the firm and factors there is potential marketing channel plans in Stage 3 of New Product Development Process.

For the factors the time to reach market is short, and there exists identifiable market and few or no competitor, the p-value is less than significant level 0.05 in Stage 2. Hence, the decisions is to reject the null hypothesis and accept the alternative hypothesis in Stage 2 of New Product Development Process. Rather it can be found that there is enough evidence to suggest an association between size of the firm and the time to reach market is short, and there exists identifiable market and few or no competitor in Stage 2 of New Product Development. Based on result, it can be conclude that there is significant association was found between size of the firm and the factors the time to reach market is short, and there exists identifiable market and few or no competitor in stage 2 of New Product Development. Whereas, the factors the time to reach market is short, and there exists identifiable market and few or no competitor, the p-value is greater than significant level 0.05 in Stage 1 and Stage 3. Hence, the decisions is to accept the null hypothesis and reject the alternative hypothesis in Stage 1 and Stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence...
evince to suggest an association between size of the firm and the time to reach market is short, and there exists identifiable market and few or no competitor in Stage 1 and Stage 3 of New Product Development. Based on result, it can be conclude that there is no significant association was found between size of the firm and the factors the time to reach market is short, and there exists identifiable market and few or no competitor in stage 1 and Stage 3 of New Product Development.

For the factors the product has the first-mover advantage and strong functional characteristics, the product and target market is clearly defined, the market is growing and big enough, and there are few or no substitutable products, the p-value is less than significant value 0.05 in Stage 3 of New Product Development Process. Rather, it can be found that there is enough evidence to suggest an association between size of the firm and the factors the product has the first-mover advantage and strong functional characteristics, the product and target market is clearly defined, the market is growing and big enough, and there are few or no substitutable products in Stage 3 of New Product Development Process. Based on result, it can be conclude that there is significant association was found between size of the firm and the factors the time to reach market is short, and there exists identifiable market and few or no competitor in stage 3 of New Product Development. Whereas, the factors the product has the first-mover advantage and strong functional characteristics, the product and target market is clearly defined, the market is growing and big enough, and there are few or no substitutable products, the p-value is greater than significant value 0.05 in Stage 1 and Stage 2 of New Product Development Process. Rather, it can be found that there is not enough evidence to suggest an association between size of the firm and the factors the product has the first-mover advantage and strong functional characteristics, the product and target market is clearly defined, the market is growing and big enough, and there are few or no substitutable products in Stage 1 and Stage 2 of New Product Development Process. Based on result, it can be conclude that there is no association was found between size of the firm and the factors the time to reach market is short, and there exists identifiable market and few or no competitor in Stage 1 and Stage 2 of New Product Development.
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To test the importance of the key success factors in each stage of new product development process. The non-parametric Mann-Whitney U Test were applied to test the importance of each factor in each test (see pint 8.4 in Chapter 8).

For the Factor the product has the first-mover advantage and strong functional characteristics, the time to reach market is short, the product and target market is clearly defined, and the product has competitive advantage found that p-value is less than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development. Hence, it can be concluded that the factors the product has the first-mover advantage and strong functional characteristics, the time to reach market is short, the product and target market is clearly defined, and the product has competitive advantage are significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

The factor there is potential marketing channel plans found that p-value is less than significant value 0.05 in Stage 1, and Stage 2 of New Product Development. Hence, it can be concluded that the factors there is potential marketing channel plans is significantly important in Stage 1, and Stage 2 of New Product Development Process. Whereas the factor there is potential marketing channel plans found that p-value is greater than significant value 0.05 in Stage 3 of New Product Development. Hence, it can be concluded that the factors there is potential marketing channel plans is not significantly important in Stage 3, and Stage 2 of New Product Development Process.

The factor there exists identifiable market and few or no competitor found that p-value is less than significant value 0.05 in Stage 2 of New Product Development. Hence, it can be concluded that the factors there exists identifiable market and few or no competitor is significantly important in Stage 2 of New Product Development Process. Hence it can be concluded that the factor there exists identifiable market and few or no competitor is significantly important in Stage 2 of New Product Development Process. Whereas the factor there exists identifiable market and few or no competitor found that p-value is greater than significant value 0.05 in Stage 1 and Stage 3 of New Product Development. Hence, it can be concluded that the factors there is potential marketing channel plans is not significantly important in Stage 1, and Stage 3 of New Product Development Process.
The factors the market is growing and big enough, and there are few or no substitutable products found that p-value is less than significant value 0.05 in Stage 3 of New Product Development. Hence, it can be concluded that the factors the market is growing and big enough, and there are few or no substitutable products is significantly important in Stage 3 of New Product Development Process in Stage 2 of New Product Development Process. Whereas the factor the market is growing and big enough, and there are few or no substitutable products found that p-value is greater than significant value 0.05 in Stage 1 and Stage 2 of New Product Development. Hence, it can be concluded that the factors there is potential marketing channel plans is not significantly important in Stage 1, and Stage 2 of New Product Development Process.

**9.3.2.2 Findings and Conclusion for Textile SMEs**

The aim of this study is to measure the extent of importance of Marketing Factors in New Product Development Process of Diamond, SMEs. To achieve this objectives the data is collected using structured questionnaire and distributed to Managerial level people like Managers, Owners, CEO, Partners to measure the extent of importance of marketing factors in all three stage of New Product Development Process in Diamond SMEs where 8 criteria were there to measure the extent of importance of marketing factors in NPD on 5 Point Likert Scale where 1 is Not at all important and 5 represent Extremely important in Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. After collecting the data first check the reliability of the data Cronbach’s Alpha for Marketing Factors in each three stage of New Product Development Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (see Point 7.7 in Chapter 7) shows that the data is reliable for further test. After checking reliability, applied normality of the data using most reliable test Kolmogorov-Smirnov and Shapiro-Wilk found that the data violate the normality and found that the data are not normally distributed for Stage1 Idea Generation Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (see Point 7.9 in Chapter 7). For that reason applied non parametric test. In non-parametric first applied cross tabulation of Marketing Factors with the Size of the Firm in all three stages (see Point 8.5 in Chapter 8).
Further to check the association between size of the firm and Marketing Factors applied Chi-Square Test (see Point 8.6 in Chapter 8). The factors the time to reach market is short, the market is growing and big enough, there exists identifiable market and few or no competitor, and there is potential marketing channel plans the p-value is less than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Rather, it can be found that there is enough evidence to suggest an association between size of the firm and the factors the time to reach market is short, the market is growing and big enough, there exists identifiable market and few or no competitor, and there is potential marketing channel plans in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Based on result, it can be conclude that there is significant association was found between size of the firm and the factors the time to reach market is short, the market is growing and big enough, there exists identifiable market and few or no competitor, and there is potential marketing channel plans in Stage 1, Stage 2 and Stage 3 of New Product Development.

The factors the product and target market is clearly defined, there are few or no substitutable products and the product has competitive advantage the p-value is less than significant value 0.05 in Stage 3 of New Product Development Process. Rather, it can be found that there is enough evidence to suggest an association between size of the firm and the factors the product and target market is clearly defined, there are few or no substitutable products and the product has competitive advantage in Stage 3 of New Product Development Process. Based on result, it can be conclude that there is significant association was found between size of the firm and the factors the product and target market is clearly defined, there are few or no substitutable products and the product has competitive advantage in Stage 3 of New Product Development. Whereas, the factors the product and target market is clearly defined, there are few or no substitutable products and the product has competitive advantage the p-value is greater than significant value 0.05 in Stage 1 and Stage 2 of New Product Development Process. Rather, it can be found that there is not enough evidence to suggest an association between size of the firm and the factors the product and target market is clearly defined, there are few or no substitutable products and the product has competitive advantage in Stage 1 and Stage 2 of New Product Development Process. Based on result, it can be conclude that there is no significant association was found
between size of the firm and the factors the product and target market is clearly defined, there are few or no substitutable products and the product has competitive advantage in Stage 3 of New Product Development.

The factor the product has the first-mover advantage and strong functional characteristics the p-value is greater than significant value 0.05 in Stage 1 and Stage 2 and Stage 3 of New Product Development Process. Rather, it can be found that there is not enough evidence to suggest an association between size of the firm and the product has the first-mover advantage and strong functional characteristics in Stage 1 and Stage 2 and Stage 3 of New Product Development Process. Based on result, it can be conclude that there is no significant association was found between size of the firm and the factors the product has the first-mover advantage and strong functional characteristics in Stage 1, Stage 2 and Stage 3 of New Product Development.

To test the importance of the key success factors in each stage of new product development process. The non-parametric Mann-Whitney U Test were applied to test the importance of each factor in each Stage of New Product Development (see Point 8.6 in chapter 8).

The factors, the time to reach market is short, the market is growing and big enough, there exists identifiable market and few or no competitor, and there is potential marketing channel plans found that p-value is less than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development. Hence, it can be concluded that the factors the time to reach market is short, the market is growing and big enough, there exists identifiable market and few or no competitor, and there is potential marketing channel plans are significantly important in all three Stages of New Product Development Process.

The factors the product and target market is clearly defined, there are few or no substitutable products, and the product has competitive advantage fond p-value is less than significant value 0.05 in stage 3. Hence, it can be concluded that the factors the product and target market is clearly defined, there are few or no substitutable products, and the product has competitive advantage are significantly important in Stage 3 of New Product Development Process. Whereas, the factors the product and target market
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is clearly defined, there are few or no substitutable products, and the product has competitive advantage fond p-value is greater than significant value 0.05 in Stage 1 and Stage 2. Hence, it can be concluded that the factors the product and target market is clearly defined, there are few or no substitutable products, and the product has competitive advantage are not significantly important in Stage 3 of New Product Development Process.

The factor the product has the first-mover advantage and strong functional characteristics found p-value is greater than significant value 0.05 in Stage 1 and Stage 2 and Stage 3. Hence, it can be concluded that the factor the product has the first-mover advantage and strong functional characteristics is not significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

9.3.3 To study the importance of Commercial Factors in New Product Development Stage 1 Idea Generation and Concept Development Stage 2 Design and Development and Stage 3 Commercialization with respect to Textile and Diamond SMEs of Surat.

9.3.3.1 Findings and Conclusion for Textile SMEs

The aim of this study is to measure the extent of importance of Commercial Factors in New Product Development Process of Textile, SMEs. To achieve this objectives the data is collected using structured questionnaire and distributed to Managerial level people like Managers, Owners, CEO, Partners to measure the extent of importance of commercial factors in all three stage of New Product Development Process in Textile SMEs where 8 criteria were there to measure the extent of importance of marketing factors in NPD on 5 Point Likert Scale where 1 is Not at all important and 5 represent Extremely important in Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. After collecting the data first check the reliability of the data Cronbach’s Alpha for Commercial Factors in each three stage of New Product Development Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (see Point 7.7 in Chapter 7) shows that the data is reliable for further test. After checking reliability, applied normality of the data using most
reliable test Kolmogorov-Smirnov and Shapiro-Wilk found that the data violate the normality and found that the data are not normally distributed for Stage 1 Idea Generation Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (see Point 7.8 in Chapter 7). For that reason applied non-parametric test. In non-parametric first applied cross tabulation of Commercial Factors with the Size of the Firm in all three stages (see Point 8.2 in Chapter 8).

Further to check the association between size of the firm and Commercial Factors applied Chi-Square Test (see Point 8.4 in Chapter 8). The results shows that the p-value of the factors the product has identifiable return on investment revenue, the product has positive net present cash value and the company has spent enough on research and development is less than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factors the product has identifiable return on investment revenue, the product has positive net present cash value and the company has spent enough on research and development in the Stage 1, Stage 2 and Stage 3 of New Product Development Process.

The results shows that the p-value of the factors there is reasonable pricing strategy and the product has expected positive return on investment is less than significant value 0.05 in Stage 2, of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 2 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factor there is reasonable pricing strategy and the product has expected positive return on investment in the Stage 2 of New Product Development Process. Whereas, the results shows that the p-value of there is reasonable pricing strategy and the product has expected positive return on investment is greater than significant value 0.05 in Stage 1 and Stage 3, of New Product Development Process. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 1 and Stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest no significant association between
Size of the firm and there is reasonable pricing strategy and the factor the product has expected positive return on investment and has positive net present cash value.

To test the importance of the key success factors in each stage of new product development process. The non-parametric Mann-Whitney U Test were applied to test the importance of each factor in each Stage of New Product Development (see Point 8.4 in Chapter 8).

The factors there is reasonable pricing strategy, the product can be manufacture at low cost, the product has identifiable return on investment revenue, the product has expected positive return on investment, the product has positive net present cash value, and the company has spent enough on research and development the p-value is less than significant value 0.05 in Stage 1 and Stage 2 and Stage 3. Hence, it can be concluded that the factor there is reasonable pricing strategy, the product can be manufacture at low cost, the product has identifiable return on investment revenue, the product has expected positive return on investment, the product has positive net present cash value, and the company has spent enough on research and development are significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

The factor the product can make up the cost of the patenting the p-value is less than significant value 0.05 in Stage 2 and Stage 3. Hence, it can be concluded that the factor the product can make up the cost of the patenting is significantly important in Stage 2 and Stage 3 of New Product Development Process. Whereas, the factor the product can make up the cost of the patenting the p-value is greater than significant value 0.05 in Stage 1. Hence, it can be concluded that the factor the product can make up the cost of the patenting is not significantly important in Stage 1 of New Product Development Process.

The factor the product can be easily financed the p-value is less than significant value 0.05 in Stage 3. Hence, it can be concluded that the factor the product can be easily financed is significantly important in Stage 3 of New Product Development Process. Whereas, the factor the product can be easily financed the p-value is greater than significant value 0.05 in Stage 1 and Stage 2. Hence, it can be concluded that the
factor the product can be easily financed is not significantly important in Stage 1 and Stage 2 of New Product Development Process.

**9.3.3.2 Findings and Conclusion for Diamond SMEs**

The aim of this study is to measure the extent of importance of Commercial Factors in New Product Development Process of Diamond, SMEs. To achieve this objectives the data is collected using structured questionnaire and distributed to Managerial level people like Managers, Owners, CEO, Partners to measure the extent of importance of commercial factors in all three stage of New Product Development Process in Diamond SMEs where 8 criteria were there to measure the extent of importance of marketing factors in NPD on 5 Point Likert Scale where 1 is Not at all important and 5 represent Extremely important in Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. After collecting the data first check the reliability of the data Cronbach’s Alpha for Marketing Factors in each three stage of New Product Development Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization shows that the data is reliable for further test (see Point 7.7 in Chapter 7). After checking reliability, applied normality of the data using most reliable test Kolmogorov-Smirnova and Shapiro-Wilk (see Point 7.9 in Chapter 7) found that the data violate the normality and found that the data are not normally distributed for Stage 1 Idea Generation Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. For that reason applied non-parametric test. In non-parametric first applied cross tabulation of Commercial Factors with the Size of the Firm in all three stages (see Point 8.5 in Chapter 8).

Further to check the association between size of the firm and Commercial Factors applied Chi-Square Test (see Paoint 8.6 in Chapter 8).

The results shows that the p-value of the factors there is reasonable pricing strategy and the product has expected positive return on investment is less than significant value 0.05 in Stage 2, of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 2 of New Product Development Process. Rather it can be found that there is enough evidence to suggest
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significant association between Size of the firm and the factor there is reasonable pricing strategy and the product has expected positive return on investment in the Stage 2 of New Product Development Process. Whereas, the results shows that the p-value of there is reasonable pricing strategy and the product has expected positive return on investment is greater than significant value 0.05 in Stage 1 and Stage 3, of New Product Development Process. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 1 and Stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest no significant association between Size of the firm and there is reasonable pricing strategy and the factor the product has expected positive return on investment and has positive net present cash value.

The results shows that the p-value of the factors there is reasonable pricing strategy is less than significant value 0.05 in Stage 1 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factor there is reasonable pricing strategy in the Stage 1 of New Product Development Process. Whereas, the results shows that the p-value of the factors there is reasonable pricing strategy is greater than significant value 0.05 in Stage 2 and Stage 3 of New Product Development. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the factor there is reasonable pricing strategy in the Stage 2 and Stage 3 of New Product Development Process.

The results shows that the p-value of the factor the product has identifiable return on investment revenue is less than significant value 0.05 in Stage 2 and Stage 3 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factor the product has identifiable return on investment revenue in the Stage 2 and Stage 3 of New Product Development Process. Whereas, the results shows that the p-value of the factors the factor the product has identifiable return on investment revenue is greater than significant value 0.05 in Stage 2 and Stage 3 of New Product Development Process.
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1 of New Product Development. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 1 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the factor the factor the product has identifiable return on investment revenue in the Stage 1 of New Product Development Process.

The results shows that the p-value of the factors the product can be manufacture at low cost and the product can be easily financed are greater than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the factor the factors the product can be manufacture at low cost and the product can be easily financed in the Stage 1, Stage 2 and Stage 3 of New Product Development Process.

To test the importance of the key success factors in each stage of new product development process. The non-parametric Mann-Whitney U Test were applied to test the importance of each factor in each Stage of New Product Development (see Point 8.6 in Chapter 8).

The factors the product has positive net present cash value, the product can make up the cost of the patenting, and the company has spent enough on research and development the p-value is less than significant value 0.05 in Stage 1, Stage 2 and Stage 3. Hence, it can be concluded that the factors the product has positive net present cash value, the product can make up the cost of the patenting, and the company has spent enough on research and development significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

The factors there is reasonable pricing strategy, and the product has expected positive return on investment the p-value is less than significant value 0.05 in Stage 1. Hence, it can be concluded that the factors there is reasonable pricing strategy, and the product has expected positive return on investment are significantly important in Stage 1 of New Product Development Process. Whereas, the factors there is reasonable pricing strategy, and the product has expected positive return on investment the p-value
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is greater than significant value 0.05 in Stage 2 and Stage 3. Hence, it can be concluded that the factors there is reasonable pricing strategy, and the product has expected positive return on investment are not significantly important in Stage 2 and Stage 3 of New Product Development Process.

The factors the product can be manufacture at low cost, the product can be easily financed, and the product has identifiable return on investment revenue the p-value is greater than significant value 0.05 in Stage 1, Stage 2 and Stage 3. Hence, it can be concluded that the factors the product can be manufacture at low cost, the product can be easily financed, and the product has identifiable return on investment revenue are not significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

9.3.4 To study the importance of Managerial Factors in New Product Development Stage 1 Idea Generation and Concept Development Stage 2 Design and Development and Stage 3 Commercialization with respect to Textile SMEs of Surat.

9.3.4.1 Findings and Conclusion for Textile SMEs

The aim of this study is to measure the extent of importance of Managerial Factors in New Product Development Process of Textile, SMEs. To achieve this objectives the data is collected using structured questionnaire and distributed to Managerial level people like Managers, Owners, CEO, Partners to measure the extent of importance of commercial factors in all three stage of New Product Development Process in Textile SMEs where 8 criteria were there to measure the extent of importance of marketing factors in NPD on 5 Point Likert Scale where 1 is Not at all important and 5 represent Extremely important in Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. After collecting the data first check the reliability of the data Cronbach’s Alpha for Managerial Factors in each three stage of New Product Development Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization shows that the data is reliable for further test (see Point 7.7 in Chapter 7). After checking reliability, applied normality of the data using most
reliable test Kolmogorov-Smirnova and Shapiro-Wilk (see Point 7.8 in Chapter 7) found that the data violate the normality and found that the data are not normally distributed for Stage 1 Idea Generation Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. For that reason applied non parametric test. In non-parametric first applied cross tabulation of Managerial Factors with the Size of the Firm in all three stages (see Point 8.2 in Chapter 8).

Further to check the association between size of the firm and Managerial Factors applied Chi-Square Test (see Point 8.4 in Chapter 8).

The results shows that the p-value of the factors there is managerial expertise in the company, the company has effective incentive system, the company has qualified production staff, the company has qualified technical staff less than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factors there is managerial expertise in the company, the company has effective incentive system, the company has qualified production staff, the company has qualified technical staff in the Stage 1, stage 2 and stage 3 of New Product Development Process.

The results shows that the p-value of the factor the inventor has relevant manufacturing experience in the industry & support NPD team is less than significant value 0.05 in Stage 1, and Stage 2 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1, and Stage 2 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factors the inventor has relevant manufacturing experience in the industry & support NPD team, in the Stage 1 of New Product Development Process. Whereas, The results shows that the p-value of the factor the inventor has relevant manufacturing experience in the industry & support NPD team is greater than significant value 0.05 in Stage 3 of New Product Development. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm.
and the factors the inventor has relevant manufacturing experience in the industry & support NPD team, in the Stage 3 of New Product Development Process.

The results shows that the p-value of the factor the company has sufficient resources for NPD is less than significant value 0.05 in Stage 2, and Stage 3 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 2, and Stage 3 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factor the company has sufficient resources for NPD, in the Stage 2 and Stage 3 of New Product Development Process. Whereas, The results shows that the p-value of the factor the company has sufficient resources for NPD is greater than significant value 0.05 in Stage 1 of New Product Development. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 1 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the factors the factor the company has sufficient resources for NPD, in the Stage 1 of New Product Development Process.

The results shows that the p-value of the factor the inventor owns the patent and has good reputation is greater than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the factor the inventor owns the patent and has good reputation, in the Stage 1, Stage 2 and Stage 3 of New Product Development Process.

To test the importance of the key success factors in each stage of new product development process. The non-parametric Mann-Whitney U Test were applied to test the importance of each factor in each Stage of New Product Development (see Point 8.4 in Chapter 8).

The factors the inventor has relevant manufacturing experience in the industry & support NPD team, the company has effective incentive system, the company has
qualified marketing staff, the company has qualified production staff, and the company has qualified technical staff, p-value is less than significant value 0.05 in Stage 1, Stage 2 and Stage 3. Hence, it can be concluded that the factors the inventor has relevant manufacturing experience in the industry & support NPD team, the company has effective incentive system, the company has qualified marketing staff, the company has qualified production staff, and the company has qualified technical staff, is significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

The factors the company has sufficient resources for NPD, the inventor owns the patent and has good reputation, and there is managerial expertise in the company p-value is greater than significant value 0.05 in Stage 1, Stage 2 and Stage 3. Hence, it can be concluded that the factors the company has sufficient resources for NPD, the inventor owns the patent and has good reputation, and there is managerial expertise in the company, are not significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

9.3.4.2 Findings and Conclusion for Diamond SMEs

The aim of this study is to measure the extent of importance of Managerial Factors in New Product Development Process of Diamond SMEs. To achieve this objectives the data is collected using structured questionnaire and distributed to Managerial level people like Managers, Owners, CEO, Partners to measure the extent of importance of commercial factors in all three stage of New Product Development Process in Diamond SMEs where 8 criteria were there to measure the extent of importance of marketing factors in NPD on 5 Point Likert Scale where 1 is Not at all important and 5 represent Extremely important in Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. After collecting the data first check the reliability of the data Cronbach’s Alpha for Managerial Factors in each three stage of New Product Development Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (see Point 7.7 in Chapter 7) shows that the data is reliable for further test. After checking reliability, applied normality of the data using most reliable test Kolmogorov-Smirnova and Shapiro-Wilk (see Point 7.9 in Chapter 7) found that the data violate the normality and found that the
data are not normally distributed for Stage 1 Idea Generation Concept Development, Stage 2 Design and Development and Stage 3 Commercialization. For that reason applied non parametric test. In non-parametric first applied cross tabulation of Managerial Factors with the Size of the Firm in all three stages (see Point 8.5 in Chapter 8).

Further to check the association between size of the firm and Managerial Factors applied Chi-Square Test (see Point 8.6 in Chapter 8).

The results shows that the p-value of there is managerial expertise in the company, the company has effective incentive system, less than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factors there is managerial expertise in the company, the company has effective incentive system in the Stage 1, stage 2 and stage 3 of New Product Development Process.

The results shows that the p-value of the inventor owns the patent and has good reputation, the company has qualified marketing staff and the company has qualified technical staff, less than significant value 0.05 in Stage 1, and Stage 3 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1, and Stage 3 of New Product Development Process. Whereas, the results shows that the p-value of the inventor owns the patent and has good reputation the inventor owns the patent and has good reputation, the company has qualified marketing staff and the company has qualified technical staff, greater than significant value 0.05 in Stage 2 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 2, of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the inventor owns the patent and has good reputation.
reputation, the company has qualified marketing staff and the company has qualified technical staff, in the Stage 2 of New Product Development Process.

The results shows that the p-value of the company has sufficient resources for NPD less than significant value 0.05 in Stage 2, and Stage 3 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 2, and Stage 3 of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factor the company has sufficient resources for NPD in the Stage 2, and stage 3 of New Product Development Process. Whereas, the results shows that the p-value of the company has sufficient resources for NPD, greater than significant value 0.05 in Stage 1 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 1, of New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the company has sufficient resources for NPD, in the Stage 1 of New Product Development Process.

The results shows that the p-value of the inventor has relevant manufacturing experience in the industry & support NPD team is less than significant value 0.05 in Stage 2 of New Product Development. Therefore, reject the null hypothesis and accept the alternative hypothesis in Stage 2, of New Product Development Process. Rather it can be found that there is enough evidence to suggest significant association between Size of the firm and the factor the inventor has relevant manufacturing experience in the industry & support NPD team in the Stage 2 of New Product Development Process. Whereas, the results shows that the p-value of the inventor has relevant manufacturing experience in the industry & support NPD team is less, greater than significant value 0.05 in Stage 1 and Stage 3 of New Product Development. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 1 and Stage 3, in New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the inventor has relevant manufacturing experience in the industry & support NPD team, in the Stage 1 and Stage 3 of New Product Development Process.
The results shows that the p-value of the company has qualified production staff is less, greater than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development. Therefore, accept the null hypothesis and reject the alternative hypothesis in Stage 1, Stage 2 and Stage 3, in New Product Development Process. Rather it can be found that there is not enough evidence to suggest significant association between Size of the firm and the company has qualified production staff, in the Stage 1, Stage 2 and Stage 3 of New Product Development Process.

To test the importance of the key success factors in each stage of new product development process. The non-parametric Mann-Whitney U Test were applied to test the importance of each factor in each Stage of New Product Development (see Point 8.6 in Chapter 8).

The factors there is managerial expertise in the company, the company has effective incentive system, and the company has qualified marketing staff p-value is less than significant value 0.05 in Stage 1, Stage 2 and Stage 3. Hence, it can be concluded that the factors there is managerial expertise in the company, the company has effective incentive system, and the company has qualified marketing staff is significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

The factor the company has qualified production staff, p-value is less than significant value 0.05 in Stage 1 and Stage 3 of New Product Development Process. Hence, it can be concluded that the factor the company has qualified production staff is significantly important in Stage 1, and Stage 3 of New Product Development Process. Whereas, the factor the company has qualified production staff, p-value is greater than significant value 0.05 in Stage 2 of New Product Development Process. Hence, it can be concluded that the factor the company has qualified production staff is not significantly important in Stage 2, of New Product Development Process.

The factors the company has sufficient resources for NPD, The inventor has relevant manufacturing experience in the industry & support NPD team and The company has qualified technical staff, p-value is less than significant value 0.05 in Stage 3 of New Product Development Process. Hence, it can be concluded that the
company has sufficient resources for NPD, the inventor has relevant manufacturing experience in the industry & support NPD team and the company has qualified technical staff, in Stage 3 of New Product Development Process. Whereas, the factors the company has sufficient resources for NPD, the inventor has relevant manufacturing experience in the industry & support NPD team and the company has qualified technical staff, p-value is greater than significant value 0.05 in Stage 3 of New Product Development Process. Hence, it can be concluded that the company has sufficient resources for NPD, the inventor has relevant manufacturing experience in the industry & support NPD team and the company has qualified technical staff is not significantly important, in Stage 3 of New Product Development Process.

The factors the inventor owns the patent and has good reputation, p-value is greater than significant value 0.05 in Stage 1, Stage 2 and Stage 3 of New Product Development Process. Hence, it can be concluded that the inventor owns the patent and has good reputation is not significantly important in Stage 1, Stage 2 and Stage 3 of New Product Development Process.

9.3.5 The Overall Findings and Conclusion

9.3.5.1 Textile SMEs

This study examines key success factors that affect NPD in Textile SMEs. The stage-wise analysis identifies key success factors for each stage of NPD and highlights where the attempts should be put in each stage of NPD. The observed evidence suggests that Textile SMEs do regard commercial factors, such as the reasonable pricing strategy, the product can manufactured at low cost, the product has identifiable return on investment revenue, the product has expected positive return on investment, the product has positive net present cash value and the company has spent enough on research and development as the important factors in stage of NPD process in Textile SMEs during.

In order to develop a commercially successful product, Textile have to determine the potential product or technology is new to the market in order to avoid the duplication of old methods. Therefore, creating more potential alternatives for additional evaluation is essential. If firms pay more attention to the commercial factors
in initial stage, many good ideas could be killed. Additionally to idea generation, firms also actively engage in a technological factors during the initial stage of the NPD process. NPD involves technological search (Nelson and Winter, 1982), and searching more broadly open source technology will help to resolve the problems in easy way and to make better product development choice (Fleming and Sorenson, 2004). Though, to emphasize the importance of the uniqueness of the technology does not mean firms do not pay attention to other success factors. It is possible that firms may have “great technological and inventive potential, but remain relatively failed in the commercialization of its products” (Fleming, 2002). Therefore, firms have to take other key success factors into consideration as well.

The findings of the study reveals that the relative importance of the Key Success Factors differs across different stages. Textile SMEs pay a lot of attention to the commercial and managerial factors at the initial stage of NPD. After that, their attention gradually turns to technological and marketing factors. This interesting result is contrast with those obtained by previous researchers (Cooper, 1979; Song and Parry, 1994, Jefeng Mu 2007) and match with (Xueli Huang, Geoffrey N. Soutar, and Alan Brown 2002) results that marketing-related activities were undertaken less frequently and were less well executed in developing new products. The firms usually emphasize commercial and managerial capability and proficiency as a key source of new product performance and competitive advantage in Textiel SMEs.

9.3.5.2 Diamond SMEs

This study examines key success factors that affect NPD in Diamond SMEs. The stage-wise analysis identifies key success factors for each stage of NPD and highlights where the attempts should be put in each stage of NPD. The observed evidence suggests that Diamond SMEs do regard commercial factors, such as the product has positive net present cash value, the product can make up the cost of the patenting, the company has spent enough on research and development as the important factors in stage of NPD process in Diamond SMEs.

In order to develop a commercially successful product, Diamond SMEs have to determine the potential product or technology is new to the market in order to avoid the
duplication of old methods. Therefore, creating more potential alternatives for additional evaluation is essential. If firms pay more attention to the commercial factors in initial stage, many good ideas could be killed. Additionally to idea generation, firms also actively engage in a technological factors during the initial stage of the NPD process. NPD involves technological search (Nelson and Winter, 1982), and searching more broadly open source technology will help to resolve the problems in easy way and to make better product development choice (Fleming and Sorenson, 2004). Though, to emphasize the importance of the uniqueness of the technology does not mean firms do not pay attention to other success factors. It is possible that firms may have “great technological and inventive potential, but remain relatively failed in the commercialization of its products” (Fleming, 2002). Therefore, firms have to take other key success factors into consideration as well.

The findings of the study reveals that the relative importance of the Key Success Factors differs across different stages. Diamond SMEs pay a lot of attention to the commercial and marketing factors at the initial stage of NPD. After that, their attention gradually turns to technological and managerial factors. This interesting result is contrast with those obtained by previous researchers (Cooper, 1979; Song and Parry, 1994, Jefeng Mu 2007) and match with (Xueli Huang, Geoffrey N. Soutar, and Alan Brown 2002) results that marketing-related activities were undertaken less frequently and were less well executed in developing new products. The firms usually emphasize marketing and managerial capability and proficiency as a key source of new product performance and competitive advantage in Diamond SMEs.

For further reduce the factor Principal Coponent Analysis were done by mixing the Textile and Dimaond SMEs and found that from 33 factors reduced to 6 factors in stage 1 namely Marketing and profitability Factor, Techno-Economic Factor, Managerial and Financing Factor, Financial and Market Responsiveness Factor, Newness in Technology Factor and Complexity of Technology Factor in stage 2 out of 33 factors reduced to 5 factors namely Techno-Marketing Resource Factor, Managerial Expertise Factor, Marketing and Competitive Factor, Intellectual property and Reputation Factor, Market Growth and Technological Factor. In stage 3 out of 33 factors reduced to 7 factors namely Marketing Factor, Technological and Financial
Resources Factor, Competitive Advantage and Technological Factor, Managerial Factor, Financial Factor, Technological Factor and Intellectual Factor.

Lastly to check the relationship between the factors in all three stages Structural equation modeling is done in three phases In;

Phase 1 Stage 1 Idea Generation and Concept Development found The highest linkages (Relationship) found between Commercialization and Management with estimate of 0.378 followed by Technology is Commercialization with estimate of 0.307 and Technology and Management 0.296.

Phase 2 Stage 2 Design and Development Stage The highest linkages (Relationship) found between Commercialization and Management with estimate of 0.348 followed by Technology is Commercialization with estimate of 0.334 and Marketing and Commercialization with estimate of 0.323.

Phase 3 Stage 3 Commercialization The highest linkages (Relationship) found between Commercialization and Management with estimate of 0.412 followed by Technology is Commercialization with estimate of 0.317 and Marketing and Commercialization with estimate of 0.299.

9.4 CHAPTER SUMMARY

The Chapter 9 of the thesis is heart of the research study where important findings and conclusion of the research was discussed in detail. This chapter clarifies the objectives of the study and their results accordingly. At the end of this chapter found the conclusion from Principle Component Analysis and Structural Equation Model in Three Phases of Innovative Approach in New Product Development. This chapter ends with the short summary of the Chapter.