INTRODUCTION

Marketing executives have always faced the dilemma of how to allocate resources to different marketing activities of say advertising, pricing, loyalty programs, improving service/product quality, and these decisions are typically made by executives based on experience and intuition (Rust, Lemon and Zeithaml 2004). Expenditures in marketing have typically been viewed as short-term costs instead of long term investments, and marketing executives have been accused of being financially unaccountable (Schultz and Gronstedt 1997). We attempt to study one of the ignored marketing initiatives – product quality - and link it to firm performance, in particular, customer satisfaction, rate of revenue growth, profitability, and cost efficiency.

THEORETICAL BACKGROUND

Return on Quality—Quality’s Impact on Customer Satisfaction

Shah and Regassa


Customers will pay more if they are satisfied with the quality (Homburg, Koschate and Hoyer 2005; Iyer and Kuksov 2010), and will then spread the word through word-of-mouth, which then leads firms to advertise the high quality of its offerings (Rust, Zahorik and Keiningham 1994). Firms should segment customers based on their profitability, and should then spend resources accordingly in order to improve customer satisfaction (Keiningham et al. 2005).

Firms with high customer satisfaction index as measured by the American Customer Satisfaction Index also have a higher market value of equity (Hallowell 1996; Hogan, Lemon and Rust 2002; and Rust et al. 2002, 2004) and stock returns risk (Tuli and Bharadwaj 2009). There are a number of researchers who have studied the implications of satisfied customers due to improved quality, and consequently, its impact on the firm’s financial performance (Lakhal and Pasin 2008), profitability (Anderson, Fornell and Lehman 1994; Batty 2008; Bernhardt, Donthu and Kennett 2000; Boulding et al. 1993; Danaher and Rust 1996; Fornell et al. 1996, 2006; Hallowell 1996; Hegji and Self 2009; Ittner and Larcker 1998; Lee and Hwan 2005; Loveman 1998; Rust, Moorman and Dickson 2002; Rust, Lemon and Zeithaml 2004; Rust, Zeithaml and Lemon 2000). However, Rust, Zahorik and Keiningham (1994, 1995) find that firms that put a lot of effort and expenses into programs to improve quality have seen disappointing financial results. Ball (2006) suggests that companies need to understand the cause-and-effect relationship between quality and financial performance, and the cost of quality should be determined, and only programs that increase profits should be implemented.

Improving quality through Total Quality Management (TQM), also fosters the innovation process, and it benefits firms who pursue it more than firms who do not (Martinez-Costa and Martinez-Lorente 2008). Higher quality leads to a better image for a firm (Homer 2007, Yen-Ku and Kung-Don 2009), and there is a need for quality management focusing on customer satisfaction (Bengt, Bjarne and Rickard 2008). More than 80 percent of CEOs surveyed by Joanna, Lockee and Bass (2008) report that their boards set strategic goals for quality improvements, and track the performance, and take corrective actions if needed.

Improving customers’ perceptions of quality changes their behavior (Bolton 1998; Mittal and Kamakura 2001), which leads to customer attraction (Johnson and Gustafsson 2000; Kordupleski, Rust and Zahorik 1993), purchase intention (Chen 2008; Hong and Prybutok 2008; Hueiju and Fang 2009; Narayandas 1998; Tsiotsou 2006), retention (Bennett and Rundle-Thiele 2005; Bolton 1998; Rust, Moorman and Dickson 2002), and increased usage (Bolton and Lemon 1999).

Firms can use Six Sigma methodology to highlight customer satisfaction and continuous improvement (Aggogeri and Gentili 2008), and they can also increase customer satisfaction through the improved capabilities of information technology (Greenberg 2001; and Peppers and Rogers 1999). Japanese
companies have been regarded as customer oriented by Deshpande, Farley and Webster (1993), and they have been achieving customer satisfaction through superior technology and IT capabilities (Song, Nason and Di Benedetto 2008). Gonzalez, Mueller, and Mack (2008) recommend listening to customers before developing and improving service quality systems using Kansei Engineering and Quality Function Deployment similar to what is used in the manufacturing sector.

Consumers use third party evaluation as a product quality signal, and Dean and Lang (2008) recommend that firms should use third party evaluations in their advertising. Improved quality has also been seen to increase word of mouth (Anderson 1998; Danaher and Rust 1996), and increase in wealth and stock prices of firms (Hendricks and Singhal 1997, 2001). However, there may be a lagged effect between changes in objective quality and perceived quality and the subsequent rewards to the firm (Mitra and Golder 2006).

Firms can improve the quality of their offerings by listening to their external customers, competitors’ customers, and their own employees (Berry and Parasuraman 1997). In the same vein, Kamakura et al. (2002), suggest a service profit chain framework, and recommend that firms should perform a strategic and operational level analysis linking the operational inputs to perceptions of service quality by its consumer. Management may then be able to identify the most important inputs that have the largest impact on perceptions of quality by the consumer, and allocate resources accordingly (Kamakura et al. 2002; Rust, Lemon and Zeithaml 2004b).


Customers who are satisfied with high quality also have a higher perception of the value of a firm’s offerings (Srivastava, Shervani and Fahey 1998), who are then more willing to pay a premium price, give good publicity, buy more, are less costly to service, and are more loyal to the firm for a long period of time (Davis-Sramek et al. 2009; Hogan, Lemon and Rust 2002; Reichheld 1996; Reinartz and Kumar 2000; and Sanyayei, Moeini and Shafiei 2008). Improving quality is usually done more to improve revenue than to reduce costs, especially with improving the service (Rust, Zahorik and Keiningham 1995). However, if a firm simultaneously focuses on increasing revenue and lowering costs, then competitors will have a difficult time attacking it (Flynn, Schroeder and Sakakibara 1995).

Quality can be improved by improving design quality by collaborating with supply chain partners (Yanmei et al. 2009), through technology (Fisher-Vanden and Terry 2009), through inter and intra organizational coordination (Carr, Muthusamy, and Lee 2008), and also through multiple inspections (Chun 2009). Efforts to improve quality always result in reduced costs (Rosenfeld 2009, Scheeres 2010), through higher customer satisfaction, lower prices or increased reliability (Rust, Moorman and Dickson 2002). Profitability can be improved through improving quality, efficiencies and cutting costs and reducing costs through improved quality (Batty 2008; Pande, Neuman and Cavanaugh 2000). Quality improvements lead to lower costs due to increased efficiencies (Phillips, Chang and Buzzell 1983), increased dependability and reliability, which in turn reduces costs through efficiencies in the process and also increase revenue (Rust, Moorman and Dickson 2002). However, if a firm attempts to reduce costs through layoffs, and a reduction or loss of other benefits, then this may reduce employee morale which in turn may result in lower customer service, customer loyalty, and lower sales (Rust, Zeithaml and Lemon 2000).
Firms should have their employees engaged at the highest level to obtain more profits (Minton-Eversole 2007).

Statistical quality control techniques have become commonplace in companies due to advances in computations through sophisticated computers, which have resulted in lowering costs (Rajaram and Zhili 2009; Wheeler and Chambers 1992), and higher profits (Hendricks and Singhal 1997). However, present cost accounting systems are inadequate in addressing costs of quality improvements, and Tsai and Hsu (2010) and Yang (2008), recommend using different models to calculate the total cost of quality. Similarly, Desai (2008) recommends a quality costing approach to calculate future quality costs that could be budgeted with improving quality. Cost reductions can also be achieved by improving standardized and customized quality (Anderson, Fornell and Rust 1997).

U.S. companies have shifted their strategic emphasis from manufacturing to marketing and finance in the last decade (Buffa 1984), but the Japanese are becoming more customer-oriented (Deshpande, Farley and Webster 1993). Japanese companies have been very successful irrespective of the country they have ventured into. The Japanese first target their domestic customers through economies of scale, quality improvement and lower costs, before penetrating foreign markets with quality products that were standardized, but at a lower cost (Abbeglen, Stalk and Kaisha 1985; Doyle, Saunders and Wong 1986, 1992).

The growth of Japanese companies has usually come through innovation and manufacturing excellence (Kotabe 1990; Nonaka 1988), which is the core of their business strategy. Japanese companies also spend far more than their European and American counterparts in R&D activities, and this may explain their superiority over their counterparts in other countries on product quality, product and process innovation (Kotabe 1990).

In the engineering sector, European and Japanese companies are more competitive than American companies in markets where competencies were not product specific (Arora and Gambardella 1997), and Japanese corporations think that strategies relating to product quality are more successful than those employing price, promotion or organizational synergy (Kotabe et al. 1991). Japanese auto makers have been known to raise product quality due to their superior capabilities and lower procurement costs (Lieberman and Dhawan 2005). Japanese companies have also started using relationship marketing in order to increase long-term relationships with consumers and ultimately customer satisfaction and profits (Osaki 2007), which have helped them develop the right marketing strategies (Smothers 1990).

Japanese companies have been known to pursue globally integrated strategies so that they can benefit from cost reductions (Kogut 1985), improved product quality (Yip 1989), and higher customer preference (Levitt 1983) in order to gain competitive advantage (Hout, Porter and Rudden 1982; Hamel and Prahalad 1985). As a group, Japanese firms are much more competitive than their foreign counterparts (Noland 2007).

In the auto industry, Japanese car companies like Toyota, Nissan, and Honda have surpassed their American counterparts by developing cars to meet the unique demands of the U.S. market (Shirouzu 2001). Japanese carmakers have also been among the first to use Quality Function Deployment techniques (Hauser and Clausing 1988) which ensures that product development, manufacturing processes, process planning, and production are all market driven (Griffin 1992). The Japanese also invest in new capacity to support their objective of market domination, and their R&D policy is to constantly upgrade today's existing technology in order to maintain their competitive advantage in the future through improvements in product quality and process innovation (Ito 1995; Ito and Puick 1993), and this may be the reason they have lower profits than their American counterparts.
in the short run (Haar 1989; Johansson and Yip 1994).

Economic growth over the very long run requires a process of creative destruction in which new corporate giants continually rise to the top and defeat old behemoths (Fogel et al. 2008). This seems to be consistent with the theory of creative destruction as proposed by Schumpeter (1912), which states that growth entails innovative and creative new firms destroying old stagnant ones.

**RESEARCH OBJECTIVES**

Based on the literature review, this study has two objectives. The first objective is to see whether there is a relationship between quality and satisfaction, quality and revenue growth, quality and profitability, and quality and cost in the auto industry, as shown by the model in Figure 1. The second objective is to test the five hypotheses that state that Japanese auto manufacturers will have higher quality (H₁), higher customer satisfaction (H₂), higher revenue growth (H₃), lower costs (H₄), and higher profitability (H₅) than American auto manufacturers.

The following equations are used to test whether the above relationships hold good in the auto industry also. Equation 1 states that satisfaction has a positive relationship with quality. Equation 2 states that revenue growth is positively related to quality. Equation 3 states that cost is negatively related to quality, and finally, equation 4 states that profitability is positively related to quality.

\[ S = a_1 + \beta_1 Q + e_1 \]  
\[ R = a_2 + b_2 Q + e_2 \]  
\[ C = a_3 - b_3 Q + e_3 \]  
\[ P = a_4 + b_4 Q + e_4 \]

Where:
- \( S \) = Satisfaction
- \( Q \) = Quality
- \( R \) = Revenue Growth Rate
- \( C \) = Cost as a percentage of Sales
- \( P \) = Profitability
- \( e \) = Error term

Next, based on the findings and extension of the literature, the following five hypotheses (that compare Japanese and U.S. auto manufacturers) are proposed and tested:

- **H₁**: Japanese automakers have higher overall quality than U.S. automakers.
H₂: Since Japanese automakers have higher overall quality than U.S. automakers, they will have higher satisfaction scores (ACSI) than U.S. automakers.

H₃: Since Japanese automakers have higher overall quality than U.S. automakers, they will have higher revenue growth rate than U.S. automakers.

H₄: Since Japanese automakers have higher overall quality than U.S. automakers, they will have lower costs than U.S. automakers.

H₅: Since Japanese automakers have higher overall quality than U.S. automakers, they will have higher profitability than U.S. automakers.

**RESEARCH DESIGN**

Data are collected on General Motors, Ford, and Chrysler, representing the U.S., and Toyota, Honda, and Nissan representing Japan for total quality index, customer satisfaction, revenue growth, hours spent to make a vehicle (used as a surrogate for cost), and profitability for the years 1996-2008. Different sources are used for collecting the relevant data. Data for the Quality Index are collected from Strategic Vision. Data on satisfaction are collected from the American Customer Satisfaction Index, as compiled by the University of Michigan. Data on the financial performances – i.e., revenue growth, profitability, and cost as a percentage of sales, are collected from Yahoo Finance and Strategic Vision.

**DATA ANALYSIS AND FINDINGS**

Simple regression analysis is used to test the first four equations. The first equation states that satisfaction is positively related to quality. The second equation states that revenue growth is positively related to quality. The third equation states that cost as a percentage of sales are negatively related to quality. Finally, the fourth equation states that profits are positively related to quality. The results of the four simple regression equations are shown below.

\[
S = 14.026 + 0.401Q...........................(1)
\]

\[
R = -88.834 + 0.285Q...........................(2)
\]

\[
C = 139.692 - 0.232Q...........................(3)
\]

\[
P = 139.693 + 0.421Q.........................(4)
\]

The first equation that shows the relationship between satisfaction and quality has a t value of 2.77 and is significant at the 0.05 level. The relationship between revenue growth and quality has a t value of 1.830, and is not significant at the 0.05 level, (but is significant at the 0.10 level). The relationship between cost and quality has a t value of -1.452, and is not significant at the 0.05 level (but is significant at the 0.15 level). The relationship between profits and quality has a t value of 2.934 and is significant at the 0.05 level.

The results of the regression analysis for the four equations show that in the auto industry, quality is positively related to satisfaction with a \(\beta_1\) value of 0.401, positively related to revenue growth with a \(\beta_2\) value of 0.285 (although this was not as strong a relationship as the others), negatively related to cost with a \(\beta_3\) value of -0.232 (although not as strong a relationship as others), and positively related to profitability with a \(\beta_4\) value of 0.421. Thus, these findings from the auto industry are consistent with the findings of studies in other industries involving the impact of quality on satisfaction, revenue growth, cost, and profitability.

Next, the five hypotheses are tested. The first step was to aggregate data for the companies from the two countries. Thus, for each year, the average score for each item was found for each country. ANOVA is used to test for significant differences between companies from the two countries.

Even though the literature is filled with findings that Japanese companies tend to have higher quality than American companies, we decided to confirm that this is also true in the auto industry. Analysis of variance is done on the total quality scores for companies representing the two countries – Japanese and American automakers. Table 1 shows the results of
ANOVA for the first hypothesis. The table shows that there is a significant difference at the 0.05 level between the quality scores of Japanese and American auto manufacturers, i.e., the Japanese automakers have higher overall quality than U.S. automakers. This sets the stage to test the next four hypotheses.

Hypothesis two states that because of the higher quality, Japanese automakers will have higher customer satisfaction. Table 2 shows that there is a difference in customer satisfaction scores between the Japanese and American automakers, at the 0.05 level. Thus, hypothesis two is also supported.

The third hypothesis states that since Japanese automakers have higher quality than their American counterparts, they will have higher revenue growth than American automakers. Table 3 shows that there is significant difference at the 0.05 level between the Japanese and the American automakers in their revenue growth. Japanese automakers show much higher revenue growth than their American counterparts. Thus, hypothesis three is also supported.

The fourth hypothesis states that since Japanese automakers have higher quality than their American counterparts, they will have lower costs than the American automakers. Results of

### TABLE 1
Quality Index Differences Between Japanese and U.S. Auto Manufacturers

<table>
<thead>
<tr>
<th>Country &amp; Company</th>
<th>Company Mean</th>
<th>Country Mean</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan</strong></td>
<td></td>
<td>848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toyota</td>
<td>849.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honda</td>
<td>848.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissan</td>
<td>845.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>U.S.</strong></td>
<td></td>
<td>837.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GM</td>
<td>840.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chrysler</td>
<td>835.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ford</td>
<td>836.29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 2
Customer Satisfaction (ACSI) Differences Between Japanese and U.S. Auto Manufacturers

<table>
<thead>
<tr>
<th>Country &amp; Company</th>
<th>Company Mean</th>
<th>Country Mean</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan</strong></td>
<td></td>
<td>83.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toyota</td>
<td>84.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honda</td>
<td>84.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissan</td>
<td>80.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>U.S.</strong></td>
<td></td>
<td>79.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GM</td>
<td>81.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chrysler</td>
<td>79.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ford</td>
<td>78.85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### TABLE 3
Revenue Growth Rate Difference Between Japanese and U.S. Auto Manufacturers

<table>
<thead>
<tr>
<th>Country &amp; Company</th>
<th>Company Mean</th>
<th>Country Mean</th>
<th>F.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan</strong></td>
<td></td>
<td></td>
<td>6.95</td>
<td></td>
</tr>
<tr>
<td>Toyota</td>
<td>9.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honda</td>
<td>7.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissan</td>
<td>2.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>U.S.</strong></td>
<td></td>
<td>-1.69</td>
<td></td>
<td>9.305</td>
</tr>
<tr>
<td>GM</td>
<td>-1.77</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Chrysler</td>
<td>-1.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ford</td>
<td>-1.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 4
Cost (as a percentage of sales) Differences Between Japanese and U.S. Auto Manufacturers

<table>
<thead>
<tr>
<th>Country &amp; Company</th>
<th>Company Mean</th>
<th>Country Mean</th>
<th>F.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan</strong></td>
<td></td>
<td>92.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toyota</td>
<td>91.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honda</td>
<td>92.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissan</td>
<td>93.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>U.S.</strong></td>
<td></td>
<td>94.90</td>
<td></td>
<td>3.975</td>
</tr>
<tr>
<td>GM</td>
<td>94.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chrysler</td>
<td>93.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ford</td>
<td>97.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 5
Net Profit Margin Differences Between Japanese and U.S. Auto Manufacturers

<table>
<thead>
<tr>
<th>Country &amp; Company</th>
<th>Company Mean</th>
<th>Country Mean</th>
<th>F.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
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<td><strong>Japan</strong></td>
<td></td>
<td>4.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toyota</td>
<td>5.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honda</td>
<td>4.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissan</td>
<td>2.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>U.S.</strong></td>
<td></td>
<td>2.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GM</td>
<td>-3.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chrysler</td>
<td>2.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ford</td>
<td>1.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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the analysis of variance in table 4 show that there is a significant difference in the cost (at the 0.05 level) between the Japanese automakers and their American counterparts. Thus, the fourth hypothesis is also supported.

The fifth hypothesis states that because the Japanese automakers have higher quality than the Americans, their overall profitability will also be higher. Results of the analysis of variance in Table 5 show a significant difference at the 0.05 level, thus supporting this hypothesis. The table clearly shows that the Japanese automakers have significantly higher profitability than their American counterparts as measured by their return on investment.

DISCUSSIONS AND CONCLUSION

In the last few months the media has been awash (and still is) with the problems that Toyota’s customers have been having with the sudden acceleration in their cars. This has led Toyota to recall about 8.5 million vehicles globally, leading to congressional hearings with Toyota’s CEO. A recent survey of U.S. vehicle owners showed a drop of about 20 percent in the perceived quality of Toyota’s vehicles. Toyota’s perceived quality score fell from 84 to 67.6 last fall. Ford’s Fusion also beat Toyota’s Camry in 2009 Consumer Report’s coveted reliability survey.

This is further evidence supporting the main hypothesis of this study that quality has a direct impact of customer satisfaction, revenue growth, profitability and cost.

As stated earlier, studies in marketing involving the effect of product quality on a firm’s performance are quite lacking, especially since the quality of a firm’s product is such an integral part of a firm’s offerings. Marketing scholars have done very little in exploring the impact of product (brand) quality on a firm’s performance. The reason we think that this is important is because it is undisputed that the brand equity of firm depends heavily on the quality of its product/brand. Similarly, a firm’s image also depends on the quality of its products and brands. Subsequently, a firm can then charge a higher price based on its quality.

Unfortunately, marketing scholars have overwhelmingly emphasized service quality, ignoring product (goods) quality. Almost of the research involving antecedents and consequences of product quality have been done by scholars in management, and by default fallen in their domain.

This study had two objectives: (1) to find whether the positive impact of quality on satisfaction, revenue growth and profitability, and negative impact on cost is also seen in the auto industry, (2) whether firms with higher quality have higher levels of customer satisfaction, higher rate of revenue growth, higher profitability, and lower cost.

The findings of the study for the first objective show that two of the four relationships are quite strong and significant, while the other two are not as strong and not significant at the 0.05 level, but they are significant at the 0.10 level. The findings of the study related to the second objective show that all of the five hypotheses proposed by this study are supported by the data. Since Japanese automakers have higher quality than their American counterparts, which leads them to have higher customer satisfaction, higher revenue growth, higher profit margin, and loser cost as a percentage of sales, i.e., quality has a major impact on customer satisfaction, revenue growth, profit margin, and cost as a percentage of sales.

It is the belief of the authors of this study that data involving a much larger time period would have produced more significant results for the first objective. However, given the scope of this study, it was very difficult to get the relevant data for a longer time period since different sources were used to collect data on the desired number of variables.

We think that future studies in the field of business, especially in marketing, should investigate the impact that a firm’s product quality has on customer satisfaction and ultimately the financial performance of the
firm. If this series of relationship holds good, then it should be a very simple decision for marketing executives on how to best gain competitive advantage in the marketplace using product quality as an effective tool of its marketing strategy.

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