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# Quality + Innovation: Adapting Quality Management Practices to Achieve Innovation Performance

Scott A. Leavengood  
*Oregon State University*

Timothy R. Anderson  
*Portland State University, tim.anderson@pdx.edu*

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# Quality + Innovation

## Adapting Quality Management Practices to Achieve Innovation Performance

by Scott Leavengood and Timothy R. Anderson

In many businesses today, focus on quality as a competitive tool is being replaced by a focus on innovation. This is not to say that quality is now irrelevant but rather that it is now seen by many as “necessary but insufficient” in today’s business environment. Therefore, the task facing managers is how to achieve innovation performance in addition to quality performance.

To answer this question, U.S. West Coast wood products manufacturers were surveyed about their quality management practices and performance with respect to both quality and innovation. Survey results were analyzed to identify two categories of high-performing firms: those achieving primarily quality outcomes and those achieving both quality and innovation outcomes. Executives from firms in each category were interviewed to provide detail on the management practices used by the companies. The interviews were examined to identify similarities and differences in practices between the two categories of firms.

While most would agree that quality will always be critical to competitiveness, innovation continues to grow in importance as a key element of competitive strategy. Therefore, a challenge facing organizations is determining how to integrate the two—how to manage for both quality and innovation.

This is particularly the case in the wood products industry since the majority of firms are small. While larger firms may have a research and development department and/or a person responsible for “innovation management,” few small- to mid-sized firms can make such an investment. By contrast, all firms have at least some investment in quality management. Therefore, the question for the typical wood product manufacturer is how can it adapt its approach to quality management to achieve innovation performance in addition to quality performance?

But first, is it even feasible to integrate quality and innovation?

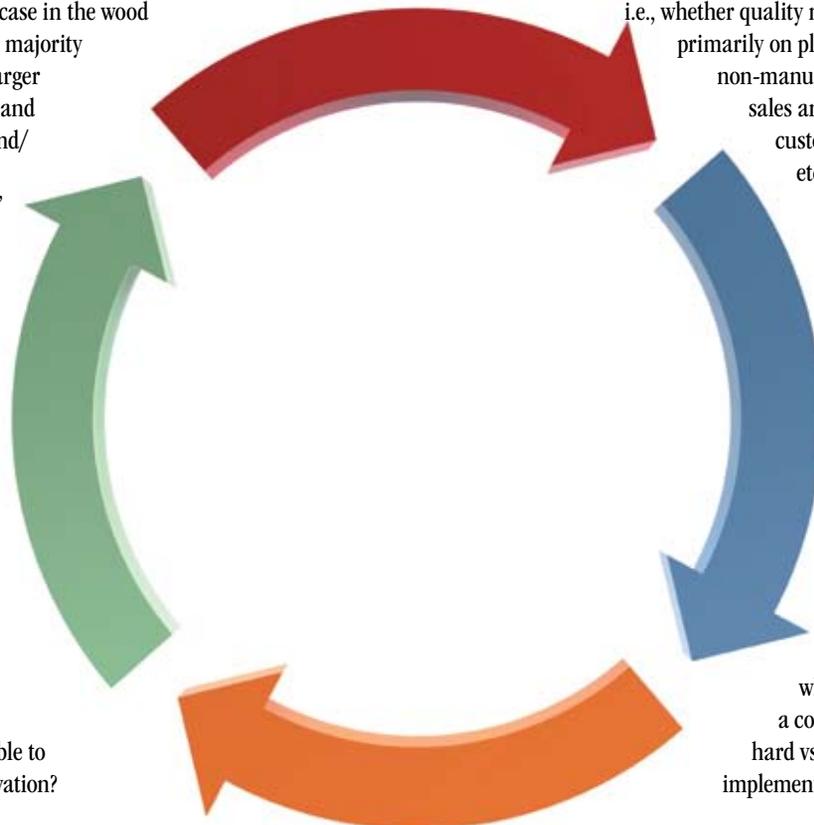
Innovation continues to grow in importance as a key element of competitive strategy.

Are these complementary or competing objectives? The answer to this, at least in part, will depend on a company’s approach to quality management. And of course, there is no “one-size-fits-all” approach to quality management.

### Varying Approaches to Quality Management

Companies vary in their emphasis on numerous aspects of quality management. Some of the key areas of differences include:

- Emphasis on “hard” vs. “soft” tools/factors. Hard factors include analytical tools, such as statistical process control (SPC), designed experiments, acceptance sampling, etc. Soft factors are more human resource oriented, such as teamwork, employee involvement and empowerment, customer relationship management, etc.
  - “Narrow” vs. “wide” scope of implementation, i.e., whether quality management is focused primarily on plant floor operations or in non-manufacturing areas, such as sales and marketing, purchasing, customer service, product design, etc.
  - “Internal” vs. “external” focus. Internal focus emphasizes the company’s operations and is primarily centered on process improvement. External focus emphasizes customers and other stakeholders. It seems reasonable to expect that differences in approach to quality management will also lead to differences in results. With respect to innovation, what are the tradeoffs in how a company chooses to emphasize hard vs. soft factors, scope of implementation, etc.?



	Balanced	Quality-Oriented
<b>Strategic Planning</b>	"We focus on facility development, what services and products to provide, market development, developing strategic partnerships with clients, . . . financial planning, business control procedures."	"Well, to try and survive we just cut costs everywhere we can."
<b>Information &amp; Analysis (benchmarking)</b>	"We try and benchmark our uptime for a . . . complex industrial process. We compare very well. We're running around 98.5% of total available time in a day... So we've got a really good technology and we find ways to keep it running continually."	"I don't care what my competitors do. I don't look at them. I don't think about them. Fifteen years ago I did. And that was a mistake. I think that you do what you do and you run hard."
<b>Customer Focus</b>	"If we saw sticks in the air [a new home being built] . . . we could stop by, measure it up . . . and as long as we'd get their contact information then we could do the bid. And we'd do a set of drawings." "Our main customers, we try to get them out here once a year and let them tour the facility."	[responses to question about measuring customer satisfaction] "Word gets back quickly." "It's real simple – if they keep buying from you, they're satisfied."

## Quality and Innovation Tradeoffs

Quality and innovation have traditionally been seen as competing rather than complementary goals. For example, some have argued that quality management focuses on incremental improvement and satisfying existing customers whereas innovation management emphasizes breakthrough improvements in products and processes and focusing on acquiring new customers. Or as one group of researchers stated, "Quality is doing things better; innovation is doing things differently."

Numerous researchers have explored relationships between quality management, innovation, and company performance. In general, the results have shown positive linkages, such as a supporting role for quality in the management of innovation, indications that quality lays the foundation for innovation, and that quality management significantly and positively impacts both quality and innovation performance.

However, the missing link is detail on which quality management practices are related to quality and innovation performance. That is, managers need more detail to determine how to adapt their quality management practices to achieve innovation performance in addition to quality performance. The objectives of this study were to identify such "best management practices" in order to be able to assist wood products companies to improve innovation performance.

The task facing managers is how to achieve innovation performance in addition to quality performance.

## Study Approach

The target group for the study included wood products manufacturers (primary, secondary, and composites) in Oregon, California, and Washington. Companies were surveyed regarding their emphasis on quality management practices and performance with respect to both quality and innovation. In-person interviews were then conducted with two broad categories of firms—those effectively achieving quality but *not* innovation performance ("quality-oriented" firms) and companies that were effectively

achieving both quality *and* innovation ("balanced" firms). Interview responses were examined to identify similarities and differences in quality management practices. Interviews were conducted at four companies—two quality-oriented and two balanced firms.

## Results

It was clear that the firms' fundamental views on innovation differed. Balanced firms (again, those firms focused on both quality and innovation performance) discussed their new product development efforts as a *means* to improve product quality. Similarly, balanced firms discussed process innovation as a means to produce more consistent products (one form of quality).

By contrast, quality-oriented firms viewed innovation primarily as "technology" rather than as a means to another goal. For example, interviewees made statements such as "we focus on people over technology" and "technology is wonderful . . . when it's proven."

Overall, many of the management practices were similar in balanced vs. quality-oriented firms. However, there were a few areas of difference. Examples of statements made by interviewees that demonstrate differences between firms are shown in the nearby table.

## Key Areas of Differences between Balanced and Quality-Oriented Firms

The results can be summarized as follows:

- Balanced firms were more proactive, forward-thinking and amenable to taking risk. This was particularly the case with customer focus where balanced firms made significant efforts, and took a fair amount of risk, to obtain new customers.
- Quality-oriented firms were reactive, focused on meeting present needs and risk-averse. While it was clear that these companies also focused on their customers, the primary focus was on existing customers rather than in pursuing new customers.

Much of the differences related to customer focus practices can be summarized as "proactive vs. reactive." For example, balanced firms demonstrated their efforts to proactively focus on customer convenience. Both of the balanced firms had websites whereas neither quality-oriented firm had a website. While this alone may say little about the firms, it is their apparent views of the purpose or function of a website that helps shed light on the differences.

Both quality-oriented firms stated that they did not have a website since they did not have the capacity to take on new business (at

least prior to the recession). Therefore, the quality-oriented firms appeared to view the purpose of a website as primarily focused on attracting new customers. Of course, balanced firms also viewed their websites as a means to attract new customers. However, balanced firms' websites also allowed existing customers to download documents such as architectural drawings, to see videos of the firm's processes, to contact with company personnel outside normal business hours, etc.

Also within the area of "customer convenience" is the practice of developing standardized product lines. Balanced firms talked about how they had recently developed standard product lines. Of course, such standardization is common practice in that it helps streamline production and lower costs. Viewed from the company's point of view, it is difficult to make a case that such practices provide convenience to the customer. However, both balanced firms discussed how such standardization made it easier for their customers to specify and order products.

### Conclusions

It is important to recognize here that the quality-oriented firms in the study had not missed the boat with regards to innovation. These companies made it clear that they deliberately chose not to pursue innovation. Hence, a prerequisite for any recommendations based on this study is that a firm must first have innovation as part of its competitive strategy.

Findings from this study suggest that managers desiring to adapt their current quality management practices to achieve both quality and innovation performance should:

1. Change how the firm views innovation—from seeing innovation as simply technology to viewing it as a means to achieve other goals, such as quality and profitability
2. Work to alter the company culture such that it is more amenable to risk, forward-thinking, and being proactive. For example:
  - o Engage in strategic planning that goes beyond cost-cutting; seek to identify longer-term trends that may impact the firm and how the company might respond.
  - o Benchmark competitors. Much can be learned about best practices from

firms within and beyond a firm's industry sector.

- o Proactively focus on customers. This is perhaps the most significant difference between the balanced and quality-oriented firms. Managers should work to ensure their company takes the initiative to identify, communicate and respond to the needs of current as well as potential customers. One specific area of focus is customer convenience via the company

website and standardized product lines.

*Scott Leavengood (scott.leavengood@oregonstate.edu) is associate professor and director of the Oregon Wood Innovation Center at Oregon State University. Timothy R. Anderson tim@etm.pdx.edu is associate professor in the Department of Engineering and Technology Management at Portland State University.*

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