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Oregon Wood Innovation Center: Connecting people, ideas, resources

Managing for Quality and Innovation

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Description: Study of best practices in quality management leading to innovation performance

Methods: Mail survey followed by personal interviews

Data Source: Executives/Owners of wood products manufacturing firms and equipment vendors

Key Findings:

1) Companies can adapt current quality management practices to increase focus on innovation performance. Key areas of focus include benchmarking competitors, employee cross-training, customer focus, and employee empowerment.

2) Overall, companies that were more proactive and strategic reported higher innovation performance.

Introduction

In many business sectors today, focus on quality as a competitive tool has been replaced by a focus on innovation. This has led some quality professionals to ask 'is quality dead?'

Research exploring connections between quality management, innovation, and company performance indicates that quality is necessary but insufficient in today's business environment. So, while quality may not be 'dead', long-term success will depend on firms' abilities to innovate as well. In short, the task facing managers is not whether to focus on quality <u>or</u> innovation but rather how to focus on quality <u>and</u> innovation. To do this, we need to know *how can a company adapt its management practices to achieve innovation performance in addition to quality performance*? But first, is it possible to focus on both?

Several potential tradeoffs between quality and innovation have been proposed[1]. For example, quality management often focuses on incremental improvement and satisfying existing customers. Innovation emphasizes breakthrough improvements in products and processes and focusing on acquiring new customers. As one group of researchers stated, "Quality is doing things better; innovation is doing things differently."[2] However, researchers have found strong linkages between product quality and process innovation, but only weak connections between product quality and product innovation[3,4].

So at the least it appears that it may be possible to manage for both. However, the question remains, how should companies adapt their quality management practices? That is, what are the best practices in quality management that lead to quality <u>and</u> innovation performance?

To answer this question, west coast forest products firms were surveyed about their quality management practices (using the Malcolm Baldrige National Quality Award[5] criteria) and two aspects of performance. The specific management practices and dimensions of performance are shown in Figure 1.

Survey results were analyzed to identify high-performing firms (i.e., those that were efficiently 'converting inputs to outputs') in two distinct categories:

1. **Balanced** — firms achieving quality <u>and</u> innovation outputs
2. **Quality-oriented** — firms that are achieving primarily quality outputs.

Three firms in each category were selected for interviews; interview questions were developed based on the companies' responses to survey questions and were intended to provide detail on the quality management practices used by the companies. The interviews were then analyzed to identify similarities and differences between the two categories of firms.

Inputs:

- Leadership
- Strategic Planning
- People Management
- Customer Focus
- Process Management
- Information & Analysis

Outputs:

- Quality (performance, conformance to specifications, durability, and reliability)
- Innovation (product, process, and business systems)

Figure 1. Quality management inputs and performance outputs included in survey.

As the interviews were reviewed, subject areas were grouped into 3 groups— 1) subjects for which there was no apparent difference between the two categories of firms; 2) subjects where there did appear to be differences, however there was no obvious pattern with regards to the two categories of firms; and 3) subjects where there were apparent differences between the two categories of firms.

Results

Both categories of firms emphasized the importance of relationships. Quotes such as "suppliers are a part of our team" and business is nothing but relationships" were indicative of all firms' views on the importance of relationships.

Companies also had similar approaches with respect to defining and measuring quality. This is not surprising in that survey results showed that both balanced and quality-oriented firms felt they were achieving good results related to the multiple dimensions of quality (durability, reliability, etc.).

There were no apparent patterns with regards to how (or if) firms assess employee satisfaction. One manager said he "tried to have a heart-to-heart with every employee", another stated that "I simply ask people how they are doing." And a third said, "we don't; they like it [their jobs] or they don't."

By contrast, there were several areas where there were apparent differences in the practices between the two categories of firms. Specific areas of difference and selected quotes that are representative of the contrast in each of these subject areas are shown in Table 1.

Table 1: Quotes from interviewees related to management practices

Practices related to:	Balanced Firms	Quality-Oriented Firms
Benchmarking	"I look at others to figure out how they've gotten to where they are"	"Absolutely not! I don't care what my competitors do."
Cross-training	"Everybody does everything"	"People get trained in limited scope; we're not having much luck getting people interested in cross-training"
Customer Focus	"My goal is to make every person happy; I'm always there making sure the finished product is exactly what they want"	"I react to customer feedback but am not sure if I'm hearing from all customers with troubles or 1 in 10"
Employee Empowerment	"I tell the salespeople do what it takes to make the customer happy"	"Hands-on is the only way; employees have got to follow my change"
Product Innovation	"I constantly try to make new products…it makes me better overall"	"We don't do it other than responding to customer requests based on competitors' new products"
Process Innovation	"We're still in business now because we invested [in new processing technology] when times were good"	"We don't use state-of-the-art equipment; we're still in business now because we don't have that debt"
Business Systems Innovation	"I get 75% of my customers from my website"	"We started using the web to look for lists of open bids"

Conclusions

So, how should companies adapt their quality management practices such that they achieve innovation performance in addition to quality performance? The responses here from balanced firms help to answer this question. The 'input' areas from Figure 1 combined with interviewee responses lead to specific areas of focus. For example:

- Focus on the best practices—benchmark your competition as well as other high-performing companies (those in your industry and beyond)
- Focus on employees—cross-train wherever feasible; empower your employees to improve processes and satisfy customers
- Focus on customers— assess their satisfaction, involve them in product development, communicate their needs to all employees

The Malcolm Baldrige National Quality Award[5] criteria provide additional details on what world-class companies are doing in these areas.

With regards to innovation, interviewee responses indicate additional areas where firms can focus their efforts. Specifically, responses in this area suggested differences in company culture. While examination of company culture was not a focus of the study, it was hard not to notice the differences between the two types of firms. In general, the balanced firms were more proactive and strategic. For example, with respect to product innovation, balanced firms stated they developed new products, even when they were not profitable in the short-term with the view that the skills gained would help in the long-term; quality-oriented firms reacted to what competitors were doing.

With regards to process innovation, balanced firms felt their success in the current economy was due to making prior investments in new technology when times were good; quality-oriented firms felt their success was due to not investing in technology and thus not incurring debt.

Lastly, with regards to business systems innovation, again, balanced firms have been proactive in, for example, using the Internet to do business whereas quality-oriented firms either see the web as irrelevant or are passively using it to find business rather than actively using it to market products and interact with customers.

Literature Cited

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