

## **Using a Balanced Scorecard in a Lean Organization: The Case of The Wiremold Company**

### **Instructor's Manual**

#### **I. Case Synopsis**

The Wiremold Company, Inc. experienced stagnating sales and profits in the late 1980s. In an effort to revive their company, they attempted to implement JIT and TQM, but failed. Still believing that the JIT – TQM approach was the appropriate direction for the future, the company hired Art Byrne, an executive with experience transforming companies to Lean business practices, to replace their retiring President and CEO. Art Byrne viewed Lean, not as an inventory control or quality initiative, nor as a production system, but as a total business management system that could be used to gain a sustainable competitive advantage. In particular, he planned to have Wiremold adopt a competitive business strategy.

The case goes on to describe how Art Byrne communicated his strategy to Wiremold's management and associates. Organizational restructuring, and changes in operations and interactions with customers and suppliers are also briefly described. Wiremold's approach to developing human resources, creating a culture of respect for people, and encouraging communication throughout the organization is also portrayed. Finally, Wiremold's performance measures are presented. Wiremold uses a small number of mostly non-financial measures to evaluate performance. From the information provided, students can create a Strategy Map and a Balanced Scorecard for Wiremold. They also can compare and contrast Wiremold's approach to performance measurement to the Balanced Scorecard approach, achieving a deeper understanding of the essence of the Balanced Scorecard approach in the process.

#### **II. Disclosure**

This case was based on field research conducted at the Wiremold Company. Team members conducted in-depth interviews with 13 members of Wiremold's management team during the summer of 2001. The completed transcripts of over 60 hours of taped interviews totaled approximately 900 pages. This case was prepared directly from the interview transcripts and documents gathered during the research process.

#### **III. Applicable Courses**

The case is intended to be used in upper division undergraduate or graduate managerial accounting courses covering the Balanced Scorecard specifically, or more generally, strategic management and performance measurement systems.

Reference to outside materials other than the course text should not be required for students to complete the case. If there is no course text or if coverage of the Balanced Scorecard in the course text is insufficient, one of Kaplan and Norton's books or one or more of their articles cited in the references can be assigned to accompany the case. The most recent book and the 2004 articles emphasize strategy maps. The earlier work, especially those published pre-2000 emphasize the Balance Scorecard itself.

Instructors who want their students to have more in-depth coverage of Wiremold can assign chapter seven in *Lean Thinking* (Womack and Jones, 1996), which describes the first few years of the Lean transformation at Wiremold. The entire book *Better Thinking, Better Results* (Emiliani et al, 2003) is devoted to the Lean transformation at Wiremold through the year 2000. In *Real Numbers* (Cunningham and Fiume, 2003), Orry Fiume, VP of Finance at Wiremold at

the time of the case, shares his thoughts on Lean Accounting. The book includes some examples from Wiremold and has a chapter that includes suggested performance measures for Lean businesses that can provide more ideas for students as they construct strategy maps. Brian Maskell's books (1991, 1994 & 1996) and *Practical Lean Accounting* (Maskell and Baggaley, 2004) are also good sources for Lean performance measures.

#### **IV. Case Objectives**

This case can be used to achieve the following objectives.

1. To give students the opportunity to critically examine a performance measurement system in the context of the Balanced Scorecard framework.

The Wiremold Company, uses a variety of performance measures and they emphasize non-financial performance measures. They have an explicit strategy, and the performance measures are connected to the strategy. They do not, at least not consciously, use the Balanced Scorecard. Students can make a plausible case that Wiremold does use a Balanced Scorecard without realizing it – that their system fits the framework, or they can conclude that Wiremold does not use a Balanced Scorecard. To make their case, the students must decide what it really means to use a Balanced Scorecard – what are the essential elements of the framework.

2. To evaluate the merits of using the Balanced Scorecard in a Lean business environment.

The Balanced Scorecard approach has attained widespread acceptance in education, in the popular business press, in academia, and in practice. You would be hard pressed to find a current edition of a Managerial Accounting or Cost Management textbook that does not cover the Balanced Scorecard. The three Balanced Scorecard books by Kaplan and Norton (1996b, 2001, and 2004a) have been popular and well received, as have many articles by Kaplan and Norton and others. Speckbacher et al (2003) cite a number of surveys suggesting roughly half of large companies have adopted the balanced scorecards, with many non-adopters considering adoption. De Waal (2003) notes the extensive citing of Kaplan and Norton's work in the performance management literature. Most of Kaplan and Norton's work and many of the papers citing their work are practitioner oriented, but academic studies such as Speckbacher et al (2003) have appeared and more are sure to follow as more and more companies adopt the Balanced Scorecard.

However, the Balanced Scorecard does not appear to have entered the Lean business literature (e.g., Cunningham and Fiume, 2003; Maskell, 1994, 1996; Maskell and Baggaley, 2004). Lean businesses do not seem to be adopting the Balanced Scorecard approach, certainly not at the rate the Balanced Scorecard has been generally adopted. Why not? What are Lean companies doing instead? If students have concluded that Wiremold is unconsciously using the Balanced Scorecard, the question remains, why aren't they consciously adopting the approach?

3. To provide students with an opportunity to build a scorecard and/or a strategy map.

Balanced Scorecard cases often either present the scorecard developed by the company, asking the students to critique it, or the cases describe the business setting and perhaps the strategy and ask the students to develop the scorecard measures. This can be a daunting task, especially for students lacking significant business experience. This case provides students with a fairly rich description of a real business setting containing a well-specified strategy and a variety of performance measures. However, the measures are not in the framework of a

Balanced Scorecard. The case provides students with sufficient structure to build a strategy map and scorecard while leaving plenty of room for critical thinking and creative variations.

4. To provide students with a description of a company using Lean as a management philosophy applicable to the entire business rather than as a production tool.

Many attempts to implement Lean business practices fail because Lean is commonly viewed as applying only to production. Others fail because they view Lean as a set of tools, or they frequently think of just a few of the tools used to implement Lean as representing the entirety of Lean. In the accounting literature, for example, JIT has been considered synonymous with Lean. In particular, the cultural/human aspect of Lean is missing from the perception of Lean (Emiliani et al, 2003). To fully appreciate the power of Lean and to reap its benefits, one must adopt it wholly as a management system. The case attempts to provide a more comprehensive picture of Lean and an illustration of its potential.

### **V. Suggested Assignments**

1. Describe Wiremold's strategy during the period described in the case.
2. What is a Strategy Map? How does it work? Construct a strategy map for The Wiremold Company.
3. What is a Balanced Scorecard? How does the Balanced Scorecard relate to the Strategy Map? Construct a Balanced Scorecard for The Wiremold Company. Feel free to add any performance measures not currently being used by The Wiremold Company that you believe would be appropriate.
4. Is Wiremold implicitly using a Balanced Scorecard? Explain your answer. If you believe Wiremold is implicitly using a Balanced Scorecard, demonstrate how their performance measurement system fits the Balanced Scorecard framework. If you believe Wiremold is not using a Balanced Scorecard, explain how their performance measurement system differs from the Balanced Scorecard framework.

### **VI. Discussion Questions**

1. Describe Wiremold's strategy during the period described in the case.

In *Strategy Maps* (2004a) Kaplan and Norton present the Strategy Map and the Balanced Scorecard as two steps (outcomes of strategic planning processes, more accurately) in a continuum beginning with the organizational mission and leading to desired "strategic" outcomes. The strategy should follow from an internally focused mission statement (the organization's reason for being) coupled with values statements (statements of principle, how the organization will be or act) and a vision statement (how the organization wants to be viewed). Wiremold's mission and values statement (called a vision statement by Wiremold) is not presented in the case. It is provided in this note as Exhibit 1 and could be distributed to the students at the option of the instructor. Wiremold's vision is found in the "strategy" Art Byrne presented to the shareholders and associates at the beginning of 1992. Wiremold was to "become one of the premiere time-based competitors in the USA with world-class manufacturing and product development skills." This statement was modified a few times during the period

covered by the case (1991-2000) but the emphasis on time-based competition remained constant. A more recent version of the “vision statement” is found in Table 2, “Be the leading supplier in the industries we serve and one of the top ten time-based competitors globally.”

Art Byrne’s strategy was to convert Wiremold to Lean business practices. The “continuous improvement” pillar of Lean is reflected in the strategy to strengthen existing operations. Wiremold was operating in a mature market and had many products that were already market share leaders. Improving quality and delivery of existing products might improve profitability, but it would not generate much sales growth. Continuous improvement would also have to occur in new product development. Wiremold would have to introduce products more quickly and successfully. To accomplish this, they would adopt the quality function deployment (QFD) approach to new product development. They would make selective acquisitions to augment internally generated growth to achieve their ambitious growth targets of profitably doubling sales every five years.

## 2. What is a Strategy Map? How does it work? What would Wiremold’s Strategy Map look like?

Kaplan and Norton (2004a) present the strategy map as a general framework that can be used to articulate and clarify the strategy. The map provides a visual representation of the strategy, linking presumed cause and effect relationships and temporal relationships across the four Balanced Scorecard dimensions. Drawing on their experience with companies adopting the Balanced Scorecard ...

... we observed that no two organizations thought about strategy the same way. Some described strategy by their financial plans for revenue and profit growth, others by their products or services, others from a quality and process orientation and still others from a human resources and learning perspective. These views were one-dimensional (Kaplan and Norton, 2004a, p. 5).

Strategy may emerge from an emphasis on a particular dimension, but the map provides a framework to depict the interrelationships and consequences across all scorecard dimensions. If the strategic focus was narrow, the map may stimulate exploration of necessary pre-conditions and unintended consequences that were not considered during the initial strategy formulation.

Kaplan and Norton’s generic strategy map format is presented in Exhibit 2. The financial perspective at the top with all arrows leading to long-term shareholder value long-term conveys a notion that long-term shareholder wealth maximization is the primary goal. Kaplan and Norton reinforce that notion by beginning their discussion with the financial perspective and working their way down to learning and growth. The shareholder wealth maximization perspective is predominant in U.S. business, but it is not a prerequisite to using the strategy map. The strategy map framework will support a stakeholder perspective treating other stakeholders with equal or even greater importance than shareholders. As Kaplan and Norton note in the quote above, a company’s strategic emphasis may emerge from any of the dimensions. Kaplan and Norton’s choice of the financial perspective as a starting point was probably more for the expository clarity of working backwards through time than to emphasize the financial perspective.

Strategy map development can begin with the dimension emphasized in the strategy statement, working backward and forward temporally from that dimension as necessary.

The Lean business philosophy is continuous improvement through the elimination of waste. Waste is identified by specifying value from the perspective of the end-use customer. Thus, a customer focus is required, and the customer perspective would be a good place to start a strategy map for a lean organization. The continuous improvement aspect of Lean also lends itself to beginning with the internal perspective, and students may find this an easier starting point given the case content. A sample strategy map for Wiremold is provided in Exhibit 3.

Internal perspective. Most of the emphasis in the case is on operations management processes. In supplier relationships, Wiremold wanted to convert from having arms-length relationships with a large number of suppliers to partnering relationships with a small number of high quality suppliers. They would use kaizen to improve operations by eliminating waste. Establishing visual controls and the 5C's are aspects of process improvement. As processes are improved, and set-up times are reduced, cycle times and inventory can also be reduced eliminating more waste and enabling improved delivery performance. Defects are reduced, eliminating waste and improving quality. The only customer management process mentioned in the case is the conversion of suppliers to cycle shipping.

For innovation processes Wiremold developed a Quality Function Deployment process to speed the introduction of new products (and improve their quality) and reduce the new product development cycle time. QFD is mentioned but not described in the case. Regulatory and social processes are not covered in the case other than a brief reference to the need for employees to believe they would not lose their job due to productivity gains. Wiremold instituted a qualified job guarantee that pledged just that. The guarantee was written into their union contract. In Exhibit 3, a double arrow is used to suggest that the qualified job guarantee reinforces lean culture as well as being a product of Lean culture.

Learning and growth perspective. Kaplan and Norton (2004a,b) split the learning and growth dimension into human capital, information capital and organizational capital dimensions. For the sake of brevity, this case does not cover information capital at Wiremold except for the allusion to information sharing with distributors. In *Strategy Maps*, Kaplan and Norton (2004a) discuss two models for strategic human capital development, the strategic job family model, and the strategic values model.<sup>7</sup> In Wiremold, the emphasis is on the strategic values model, "that strategy involves a set of values and priorities that should be incorporated into everyone's objectives and actions" (Kaplan and Norton, 2004a, p.235). The lean training and kaizen participation fits into the strategic values model. The cross training within production cells and the cross-functional assignments for high potential employees fits into the strategic job family model.

Organization capital deals with ensuring organizational alignment with the goals and strategies. Kaplan and Norton (2004a) break this into four aspects: developing leaders, fostering the proper cultural values, aligning measures and incentives with the goals and strategies, and teamwork. The cross-functional training of high potential employees could be classified as leadership development and the strategic values human capital development approach could be viewed as fostering the change in organizational culture. The distinction between human capital and organizational capital is helpful to the extent it facilitates strategy and performance measure

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<sup>7</sup> The shorter article abstracted from the *Strategy Map* book (Kaplan and Norton 2004b) focuses on the strategic job family model. The other articles abstracted from the *Strategy Map* (Kaplan and Norton 2004c,d,e) do not elaborate on human capital development.

development. Sub-classification of outcomes within the learning and growth dimension does little to enhance understanding.

Art Byrne introduced performance measures he believed reinforced strategy, and he emphasized teamwork and leadership in restructuring the organization, encouraging management and supervisors to be leaders, not bosses. The employee attitude survey measured leadership and cooperation and tried to uncover and address obstacles to teamwork.

The human resource development and cultural change in the learning and growth perspective is a necessary precursor to the operational improvements (the internal business perspective) in a Lean transformation. However, the lag between the two is very short. As employees are trained and participate in kaizen, improvements occur. Leadership and the overall cultural transformation develop more slowly, but there are enough gains from “low hanging fruit” that operational gains appear almost immediately. The initial operating gains are typical of Lean transformations even where companies never achieve widespread adoption or a true cultural transformation.

Information is critical to a Lean transformation but Lean information systems do not require high-tech solutions. Kanban (JIT) and heijunka (load leveling) information systems can be simple manual systems. In fact, manufacturing companies using sophisticated MRP systems have to unplug the production scheduling part of their MRP system to convert to Lean operations. An effective Lean information system can be automated. Kanbans for example can be electronic and sent via EDI. Students may suggest such initiatives, especially if they are provided with outside readings that suggest them, but no IT initiatives are specified in the case. The only IT related item featured in the case is the information sharing with distributors as a necessary pre-requisite to cycle shipping. That relationship is specified in Exhibit 3.

Customer Perspective. Robin Cooper (1995) characterized market competition as occurring on three dimensions, price quality and functionality. According to Cooper, the generic low cost and differentiation strategies were designed to avoid competition in the mass production environment. Low price/low cost (usually achieved through economies of scale) avoided competition by threatening potential competitors with price wars. Other firms would avoid direct competition with the low cost producer by differentiating. They would offer higher quality and/or functionality than the low cost producer. In the mass production environment, higher quality and functionality has higher cost. To be profitable, the differentiators had to sell at a higher price, attracting a different market segment, or configure themselves to efficiently serve a small subset of the market.

Lean producers achieve higher quality by finding and eliminating the root causes of defects and the waste they create. It is less costly to produce high quality than low quality. Fast changeovers by Lean producers allow them to produce small lots with the same efficiency as the niche players. Lean producers can therefore provide higher quality and the same functionality at lower cost than both the low cost producers and the niche producers. Cooper goes on to describe a confrontation strategy, a frenzy of simultaneous competition on all three dimensions among equally proficient Lean producers, but Wiremold was not facing competition from other Lean producers. Facing mass producers a lean producer could emphasize any of the three dimensions. From Cooper’s perspective, time would be an aspect of functionality.

To compete in the market, a company must provide value to customers. Kaplan and Norton (1996b, p. 74) introduce a generic model of the *customer value proposition*. In their

model, customer value is the combination of three dimensions: relationship, image, and product/service attributes. The product/service attribute dimension is itself divided into four dimensions, the three dimensions Cooper used (functionality, quality, and price) plus time. In *The Strategy-Focused Organization* (2001a), Kaplan and Norton elaborate on their model using three differentiation strategies described by Treacy and Wiersema: operational excellence, customer intimacy, and product leadership. Each strategy emphasizes a different subset of the customer value proposition, and the balanced scorecard measures chosen and emphasized should vary accordingly.

Companies differentiating on customer intimacy maintain acceptable product/service attributes and emphasize customer service and establishing long-term customer relationships. Product leadership companies emphasize being first to market with products and services having unique features while maintaining acceptable price, quality, and customer service. Companies differentiating on operation excellence would emphasize all product/service attributes, providing excellent price, quality, and timeliness for selected bundles of functionality, while maintaining acceptable customer relationships.

If students as a result of background reading try to classify Wiremold using this scheme, operational excellence is probably the best fit. Wiremold does not try to be a low price leader, but they do want to offer the best overall value, and they heavily emphasize timeliness and quality. Students may argue for customer intimacy based on the discussion of Wiremold's efforts to work with their distributors, and that is not unreasonable. Wiremold, however, looks at the distributor as a partner, not the end-use customer. Wiremold's customers are the owners and occupiers of the buildings where their products are installed. They also pay a great deal of attention to architects and contractors (especially on installation issues) because of the influence they have on the end-user's buying decisions. Wiremold's new product development targets might lead students to view Wiremold as adopting a product leadership strategy. This is less likely because for the sake of brevity, Wiremold's new product development efforts are not covered extensively in this case. Wiremold emphasizes meeting customer needs, not "pushing the envelope" or developing cutting edge technology. However, if one views listening to the voice of the customer and designing products particularly well suited to customer needs as pushing the envelope, then a case can be made for Wiremold's having a product leadership strategy.

In *Strategy Maps* (2004a) and in some of the recent articles abstracting from that book, Kaplan and Norton present four differentiation strategies. Product leadership is retained, and system lock-in (the 'Microsoft strategy') is added. The operational excellence and customer intimacy strategies are replaced by (or modified and renamed, if you prefer) "best total cost" and "complete customer solutions." "Best total cost" (lowest cost supplier, high quality, speedy purchase, appropriate selection) probably best describes Wiremold, but the company does not position itself as the lowest cost provider, unless one defines lowest cost as lowest total cost of ownership. A case also could be made for the "complete customer solutions" (quality of solutions provided, products/services per customer, customer retention, customer lifetime profitability) classification, especially if one views the distributors as customers. Wiremold does like to offer a "full line" of products to its customers and provide the best total value, not the lowest cost.

Having the students consider who Wiremold's customers really are, and how that definition can affect strategies and measures can be illuminating. The Lean philosophy suggests

determining value by focusing on the end-use customer. In Wiremold's case, these would be the occupants of the buildings where their products are used. Very often, however, the purchase decision is made by the owner of the building, who may be different from the occupant, or by the architect and/or contractor hired by the owner. Wiremold considers both the decision makers and the end users their customers, particularly in the product design phase. Most Wiremold products are sold through distributors. Wiremold considers the distributors sales partners, not customers.

There are two aspects to time-based competition: (1) the ability to deliver existing products to customers more quickly than competitors, and (2) developing new products that better suit the customer's needs more quickly than competitors. The former aspect is emphasized in the case. Using Kaplan and Norton's (2004a) customer value proposition attributes, time-based competition emphasizes availability: having existing products available when the customer needs them, and introducing new products with desirable features before they are available from competitors.

Availability of existing products enhances customer value. In Lean, availability is delivered by reducing cycle times and defects, not by carrying more inventory. A self-reinforcing, virtuous cycle is created with improved quality, lower cost, greater asset utilization (in terms of inventory) are achieved along with greater availability. These relationships are reflected in Exhibit 3. The improved quality also enhances customer value.

New product development enhances selection, functionality, and quality<sup>8</sup> as well as availability. Improved quality and functionality enhance customer value, while improved selection expands revenue opportunities.

The relationship-partnership attribute focuses on Wiremold's cycle shipping relationship with their distributors and their encouraging contractors to take large orders in multiple shipments. The distributor relationships expand revenue opportunities because the distributors are able to carry a wider array of Wiremold products. Multiple shipments of large orders enhance customer value by eliminating the need for storage, reducing damage, and reducing investment in inventory.

Financial Perspective. As shown in exhibit 3, Wiremold's strategic themes translate into the growth and productivity themes in Kaplan and Norton's (2004a) strategy map. The results of continuous improvement to eliminate waste should yield an improved cost structure. Asset utilization will be improved by drastically reducing the inventory required to support sales. Art Byrne added a sales growth strategy to enable Wiremold to leverage productivity gains without reducing employment. Since Wiremold was a market leader in a mature market, most of the growth would have to come through expanding revenue opportunities by adding products.

### 3. What is a Balanced Scorecard? How does the Balanced Scorecard relate to the Strategy Map? What does your Balanced Scorecard for Wiremold look like?

The Balanced Scorecard is a set of performance measures covering four perspectives. The Strategy Map describes what must be accomplished within each perspective to achieve the overall strategic goals and the presumed causal links between the objectives. The Balanced

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<sup>8</sup> Designing in quality and design for manufacturability are part of the QFD process.

Scorecard measures what was accomplished on each strategic objective. Neither the Strategy Map nor the Balanced Scorecard necessarily specify *how* the strategic objectives are to be achieved, although strategic objectives at the financial and even the customer perspective may be assumed to follow naturally from internal and learning and growth results. For example, “defect reduction” on the Strategy Map, and “defect rate” as a Balanced Scorecard measure do not explain how defects will be reduced. Programs or performance initiatives provide the “how.”

The set of Balanced Scorecard measures should be presented on a single sheet or screen. Multiple pages increase the likelihood that some measures will be viewed as less important or will be ignored.

Exhibit 4 is a sample set of Balanced Scorecard metrics for Wiremold. The measures that Wiremold actually uses (as shown in the goal statements and Table 2 in the case) are presented in bold type. Wiremold actually uses only three financial measures, and one of those (Sales per FTE could arguably be classified as a measure of internal operations. The two measures added are drawn from suggested financial measures in *Real Numbers* (Cunningham & Fiume, 2003). Students should have no trouble suggesting additional relevant financial performance measures for Wiremold. Profit sharing is an interesting financial performance measure. It is obviously of great interest and benefit to the employees. Fifteen percent of pre-tax operating profit is allocated to profit sharing. If the profit sharing amount reaches the goal of 20% of straight time wages, the pre-tax operating profit after profit sharing will be more than 113% (of straight time wages. After deducting non-operating expenses and taxes this is likely to yield a superb return for shareholders.

Wiremold also has only two customer measures: first shipment fill rate and number of new products. These measures, performance drivers in the customer perspective (Kaplan and Norton (1996b) could also be viewed as outcome measures in the internal business perspective. On-time delivery, a measure Wiremold uses at the cell/product family level, is substituted for fill rate in the internal perspective in Exhibit 4. Kaplan and Norton (1996b) present “core” measures as a set of generally applicable outcome attributes in the customer perspective. The suggested measures in Exhibit 4 would be relevant to many companies. Wiremold does not regularly use any of the core customer measures.

Most of Wiremold’s key measures are internal business measures. A few additional internal measures that might suggest based on the case narrative are also included. Cycle time (included on Exhibit 4) and lead-time are included as business process measures in table 3 of the case and setup time is discussed extensively. These are extremely important measures at the process level. Trends in average times across the company may have some value as a corporate level index, but the numbers have much less meaning in aggregate than they do at the individual process level. Averaging times that may vary considerably across processes and averaging across processes that vary in importance limits the effectiveness of the corporate measure.

#### 4. Is Wiremold implicitly using a Balanced Scorecard? Explain your answer.

A case can be made that Wiremold is implicitly using a Balanced Scorecard approach. Wiremold emphasizes uses a small number of performance measures, fewer than ten. The measures are largely non-financial. The measures are well aligned with Wiremold’s strategy of using a Lean transformation to become a premier time-based competitor. The case does not suggest the measures are reported on a single scorecard page, but it is easy to imagine Wiremold doing so. The small number of measures also makes it less likely that any individual measure

will be ignored. Wiremold certainly appears to be a “strategy-focused organization.” The pro-BSC case would have been stronger in the early 1990s when the Balanced Scorecard was less well developed and Strategy Maps had not yet been introduced. The learning and growth perspective was more fluid and often included innovation, which is now a dimension of the internal business perspective.

As the Balance Scorecard model has evolved and expanded there are more visible differences between the model and Wiremold’s practices. Wiremold has less than half the 20-25 measures recommended by Kaplan and Norton (2001a, p. 375). Wiremold’s corporate measures do not include any in the learning and growth perspective. They do not prepare a Strategy Map and specify cause-effect relationships between elements in their strategy. They are missing measures for a number of attributes or dimensions in each perspective. Their measures are aligned with their strategy, but they do not use the measures or a Strategy Map to communicate their strategic plan.

Why doesn’t Wiremold explicitly use a Balanced Scorecard? One possibility is the size of the company. Wiremold was small enough that the CEO could regularly meet with all the employees. He could personally communicate the strategy at employee meetings. Another possibility is that management didn’t believe they needed it. Art Byrne came to Wiremold with a well-defined strategy and a small set of measures he believed reinforced the strategy and adequately measured performance. In this context, adding additional performance measures and reporting other measures in use at the corporate level could be considered an unnecessary waste of resources – not a Lean behavior. The benefits of Wiremold’s approach are reduced reporting and measuring costs and a stronger focus on the small set of measures. The risk is that performance, while strong on Wiremold’s measures, could slip on some attribute that Wiremold is not directly tracking. The absence of the specified causal chain of a strategy map could limit Wiremold’s ability to evaluate unfavorable results.

The arguments above lead to two questions. (1) Is the Balanced Scorecard more appropriate for larger companies than smaller companies? (2) Is the Balanced Scorecard useful for Lean companies?

Larger companies are likely to obtain greater benefit from the Balanced Scorecard than are smaller companies because larger companies have to communicate strategy to a larger number of employees and managers and because they may have to coordinate strategy for more disparate business units. This does not mean that small companies cannot benefit from the Balanced Scorecard approach. Kaplan and Norton (2001a) report favorable results for relatively small adopters as well as for large organizations. If a company does not have a well articulated strategy and set of measures aligned with the strategy, adopting the Balanced Scorecard approach may provide the impetus to develop or clarify their strategy and a framework to align performance measures and incentives with strategy. The combination of a clear strategy and a well-aligned set of performance measures that Art Byrne brought to Wiremold is rare in companies large and small. To the extent that is absent, small companies can benefit from the Balanced Scorecard.

Although the Balanced Scorecard has achieved considerable acceptance in the general business community and the proportion of firms following the approach has been increasing, it seems to receive little attention in the lean business community. It may be that companies adopting Lean believe that Lean itself provides a strategic focus and performance metrics and

that their strategy can be effectively communicated without adopting a Strategy Map and a Balanced Scorecard. Lean companies may gravitate toward Wiremold's approach, concentrating on fewer measures than common in the current evolution of the Balanced Scorecard. Another possibility is that Lean companies view, as Hansen and Mowen do (2003, p. 590) the Balanced Scorecard as a strategic performance management system competing with Hoshin Kanri. Since Lean companies are adopting a management system developed in Japan, they may naturally gravitate toward Hoshin Kanri. Wiremold, for example, uses Hoshin Kanri.

Hoshin Kanri was not included in this case for the sake of brevity and because the topic is not included in most U.S. management accounting courses.<sup>9</sup> Hoshin Kanri requires a well-specified set of goals, strategies to achieve the goals, and measures of achievement. The primary focus of Hoshin Kanri is selecting and prioritizing the initiatives that will be undertaken to achieve the strategy. Art Byrne described the focus of Hoshin Kanri.

What you really try to do in hoshin planning is deselect stuff from what most companies have. They try to do too many things, like the guy trying to juggle three balls, trying to keep three balls in the air as soon as he tries to juggle four he drops them all, right? You don't just drop the one you drop all of them. And so, in hoshin planning process we work together again as a team, same process same thing and we try to select what projects we are going to work on, try and net resource those projects. Make sure we have enough resources to successfully complete the selected projects.

So the focus of Hoshin Kanri is selecting a limited number of high priority initiatives, trying to do a complete few key initiatives successfully rather than attempting a large number of initiatives and ending up being unable to devote sufficient attention to and resources to any of them. The Balanced Scorecard approach has not ignored the link to strategic initiatives. For example, Kaplan and Norton (2001a, p.71; 2004a, p. 367) present tables linking Strategy Map objectives and Balanced Scorecard performance measures and targets (similar to Exhibit 4) to strategic initiatives and the budgeted resources for those initiatives.<sup>10</sup> The emphasis in the Balanced Scorecard, however, has been on specifying and elaborating on the strategy through the strategy maps and on measuring performance through the Balanced Scorecards. This raises the intriguing possibility that Balanced Scorecard and Hoshin Kanri could be viewed not as competing but as complementary. A company could use the Balanced Scorecard to help clarify strategy and develop performance metrics and Hoshin Kanri to prioritize and select initiatives to execute the strategy.

## **VII. References**

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<sup>9</sup> See Bechtell (1995) for an overview of Hoshin Kanri.

<sup>10</sup> This is essentially appending an action plan section with initiative and budget columns to a table like the one presented in Exhibit 4. To the extent the link with the action plan is emphasized, the balanced scorecard approach becomes more similar in thrust to Hoshin Kanri. However, there are substantial differences in their mechanics and execution.

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## Exhibit 1

### Wiremold's Vision Statement

**Vision.** People and products are the fundamentals of our business. Our vision is to provide continuing growth opportunities and a good place to work for our employees, and attractive returns to shareholders by providing our customers with quality wire management and line conditioning products and service. We aim to continuously and systematically improve upon Wiremold's tradition of excellence by the application of our operating principles.

The operating principles are:

**Quality.** Our number one priority is quality. We will not compromise the quality of our product or service to our customers. Quality is defined as meeting or exceeding the needs of internal and external customers.

**Customer.** Customers, internal and external, are the focus of all we do. By keeping customers in mind, we will provide more value than our competitors.

**Employment.** Our philosophy is one of continued employment for all Wiremold people without discrimination.

**Continuous Improvement.** By continuously improving all areas of the company, we will be rewarded with growth, satisfied customers, and happy employees.

**Employee Involvement.** We are a team. Through teamwork, mutual trust and respect, education and training we will grow together.

**Leadership.** The primary job of management is to provide leadership to help people do a better job.

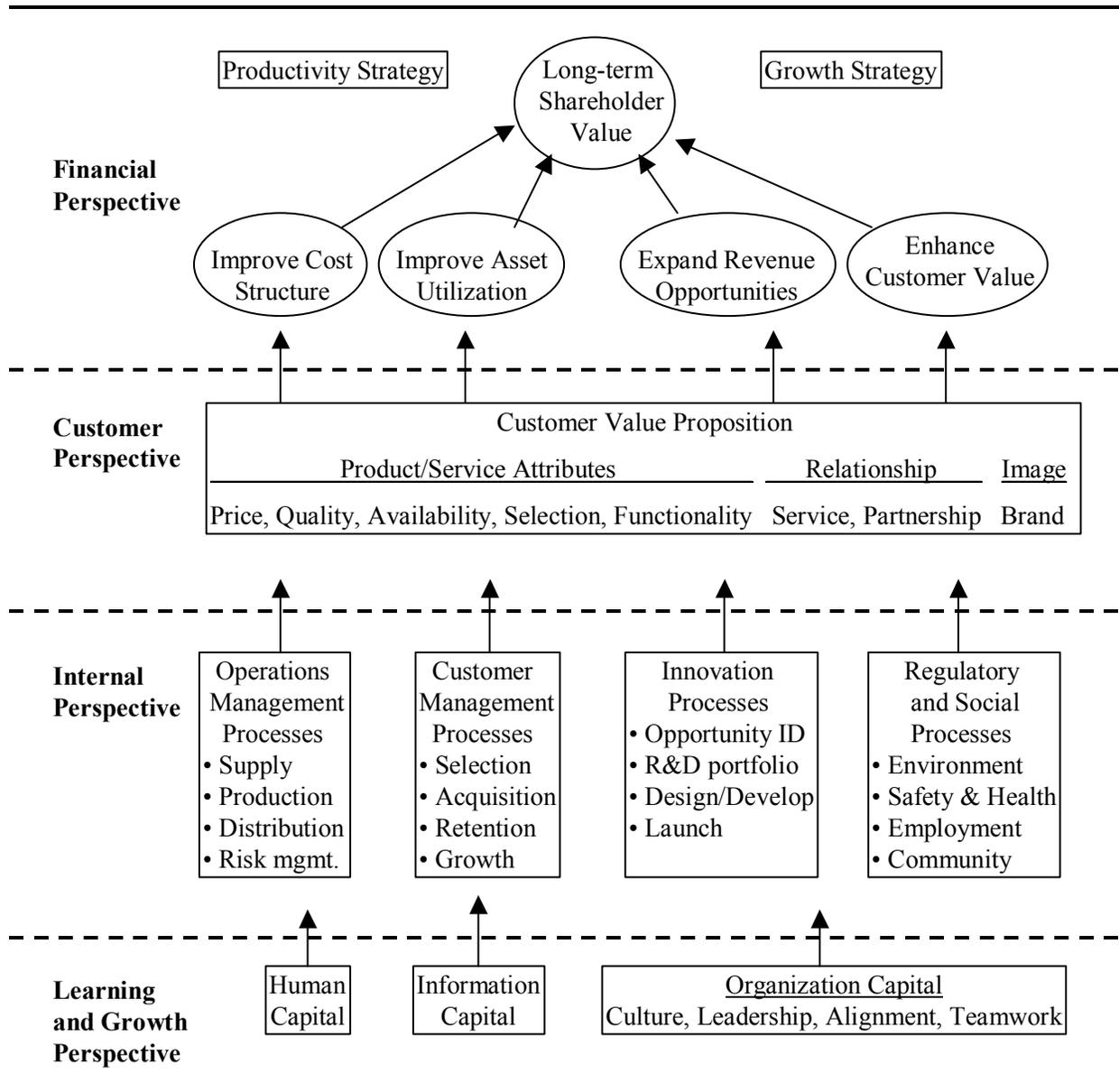
**Partnership.** Success depends on our continued, mutually beneficial relationship with customers and suppliers.

**Community and Business Citizens.** We will conduct business in a professional and ethical manner and support worthwhile causes.

Source, Company Documents

**Exhibit 2**

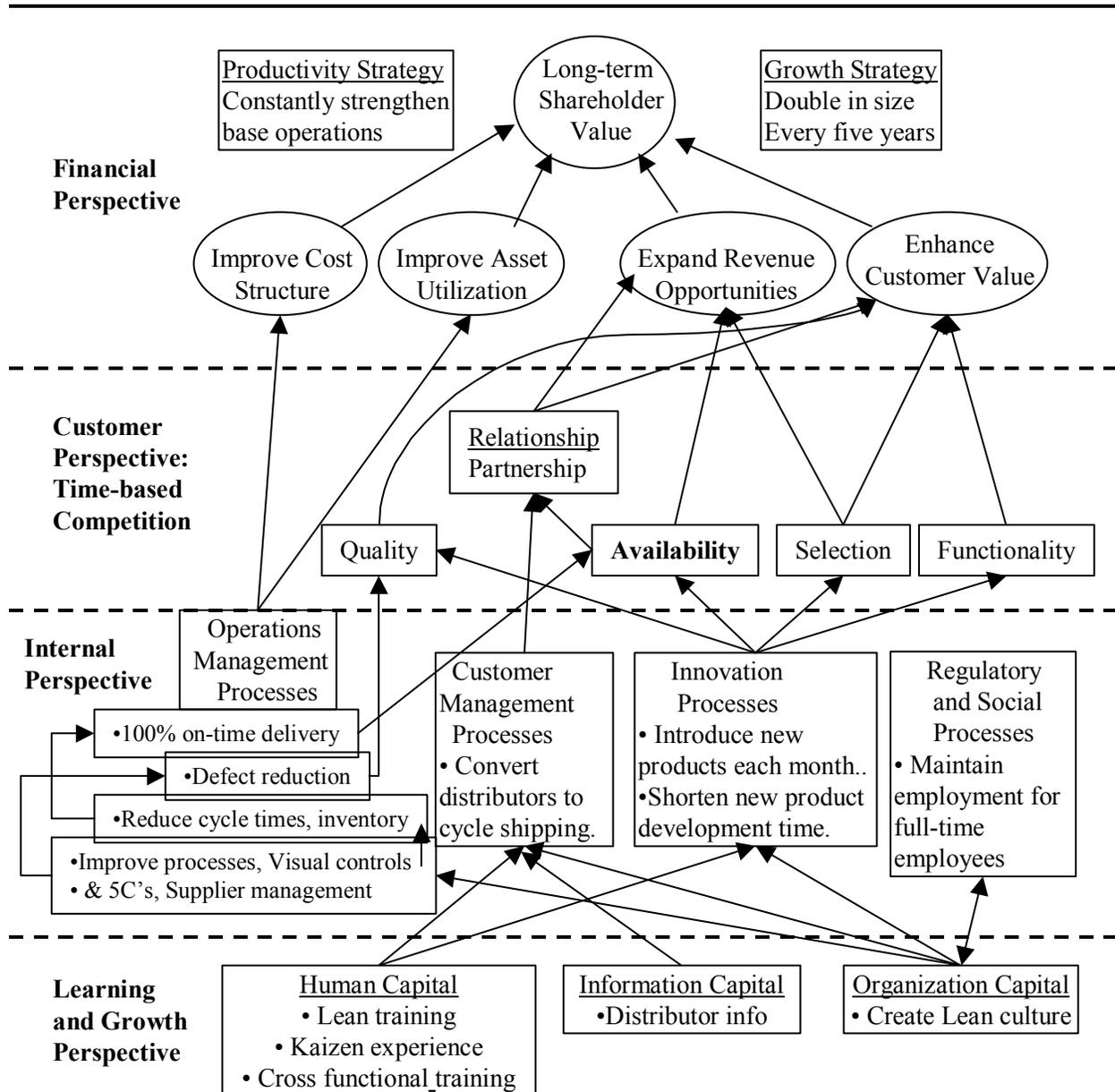
**Generic Strategy Map**



Adapted from Kaplan & Norton (2004a) Figure 1-3, p. 11

**Exhibit 3**

**Wiremold's Strategy Map**



**Exhibit 4****Wiremold's Balanced Scorecard Measures**

Perspective	Strategy Map	Balanced Scorecard	
	Objectives	Measurement	Target
Financial	<p>Overall</p> <p>Productivity theme: Strengthen base operations</p> <p>Growth theme: Double in size every five years through new products and selective acquisitions</p>	<p><b>Profit Sharing</b> Operating Income/Sales</p> <p><b>Sales per FTE</b></p> <p><b>Sales</b> % sales from new products</p>	<p>20%</p> <p>20% an. inc.</p> <p>≈ 15% an. increase</p>
Customer	<p>Time-based competition: Availability, OTD New Product introduction</p> <p>Core measures: Market share Customer acquisition Customer retention</p> <p>Customer satisfaction Customer profitability</p>	<p><b>First shipment fill rate</b> <b>Number of new products*</b></p> <p>Market share % Sales to new customers % sales growth to existing customers Customer satisfaction index % Profitable customers</p>	<p>100% 1 per month</p>
Internal	<p>Operations: Delivery improvement Defect reduction Cycle time &amp; inventory reduction Visual controls &amp; 5C's Supplier management Customer management: Convert to cycle shipping</p> <p>Innovation: New products each month Shorten NPD time</p> <p>Regulatory &amp; Social: Maintain full employment</p>	<p><b>On-time delivery</b> <b>Number of defects</b> <b>Inventory turnover</b> Average cycle time <b>5C rating</b> Number of suppliers Distributors converted or % sales on cycle shipping</p> <p><b>Number of new products*</b> <b>NPD cycle time</b></p> <p>Number of FT employees</p>	<p>100% 50% an. red. 20× an.</p> <p>5 on scale</p> <p>1 per month 3-6 months</p>
Learning & Growth	<p>Organization/Human Capital: Lean training Kaizen experience Cross-functional training Leadership Teamwork</p>	<p>% of employees trained % of employees participating Number of employees Employee survey metric Employee survey metric Number of suggestions % employees w/ suggestions</p>	