

THE USE OF PRACTICES AS A TOOL TO CREATE COMPETITIVENESS

-A study of the relationship between the use of Best Business Practices in manufacturing SMEs and the managers experience on how their outcomes contributes to their firms competitiveness

Ragnar Ahlström Söderling

Business Entrepreneurship and Technology

Dalarna University

S-781 88 Borlänge

Tel: +46 (0)23 778 821 (+46 (0)70 494 8069)

Fax: +46 (0) 23 778 501

Email: ras@du.se

ABSTRACT

This paper reports an analysis on the attitude of managers to how the outcomes of their use of Best Business Practices have contributed to competitiveness of their firm. The study focus on the following questions:

- Does managers' attitude to the contribution to competitiveness differ depending on their strategy and use of Best Business Practices?
- Is it a difference between managers opinion depending on the size of their firm?

Traditionally a common view on strategy has been conceptualized as a situational choice of generic strategies (e.g. Porter) assuming a type of contingency based view of the firm. During the last decade and still dominating is the focus on core competencies or distinctive capabilities assuming a resource based view of the firm (RBV). But where do the capabilities come from? It is generally acknowledged in research that these often intangible or tacit

capabilities are developed through experiential learning or learning by practicing. This is the basis of a “practice based view of the firm” (PBV), often assumed in quality theories and methodologies, as a variant or specification of RBV. It is in PBV assumed, based on research findings, that there are practices that, in combination and when effectively linked together, can be expected to consistently improve operational performance and thus provide firms who adopt them with an advantage over those that do not.

Thus good business practices, and the learning and knowledge creation developed through using them, can be thought of as the base or foundation on which distinctive capabilities and hence competitive advantage is built

INTRODUCTION

Traditionally a common view on strategy has been conceptualized as a situational choice of generic strategies (e.g. Porter) assuming a type of contingency based view of the firm. During the last decade and still dominating is the focus on core competencies or distinctive capabilities assuming a resource based view of the firm (RBV). But where do the capabilities come from? It is generally acknowledged in research that these often intangible or tacit capabilities are developed through experiential learning or learning by practicing. This is the basis of a “practice based view of the firm” (PBV), often assumed in quality theories and methodologies, as a variant or specification of RBV. It is in PBV assumed, based on research findings, that practices used in combination and effectively linked together, can be expected to consistently improve operational performance and thus provide firms who adopt them with an advantage over those that do not.

Thus good business practices, and learning and knowledge creation developed through using them, can be thought of as the base or foundation on which distinctive capabilities and hence competitive advantage is built.

From resource based view to a practice based view of the firm

RBV has been able to make fruitful theoretical progress in the field of strategy research, e.g. in explaining *sustained* competitive advantage as resource endowment in different respects are sticky (Barney, 2001), as well as the explanation of the existence of the firm as such as superior in coordination of resources compared to the contractual interactions and price mechanisms of the market (Teece, et.al., 1997).

At the same time at the level of action oriented research, consulting and strategic management praxis, conceptualization and approaches to strategy has during the least decades been focused on business processes and practices and the search for “best practice” in different areas. Instead of a pyramidal, functional and hierarchical organization of business, a process based, horizontally, oriented and boundary spanning organization of business activity focused on customer value and quality has been advancing. These developments has not primarily been led by theoretical ideas but by practical management concepts and approaches like Sociotechnical Systems Design, Total Quality Management, Reengineering, Lean Production, Process Improvement, Benchmarking, ABC and Balanced Scorecard accounting and controlling and more recently Six Sigma approaches. A core element in this embedded “theory of the firm” is the focus on the actual character of business practices and processes, their performance measurement, control, redesign and improvement. At the level of academically formulated theory of strategy and theory of the firm, these dominant trends in the reality of business and its strategic management does not seem to have been fully recognized and been incorporated in theories of the firm and of strategy.

In the Swedish research group for studies in 5 different regions we have focus on how a practice based view of the firm (PBV) is related to a resource based view, and in which respects it can have potentially advantages compared to that view. It should be recognized that RBV have a number of strengths as an explanatory framework as well as a guide for strategy development. It is focused on the unique features of a company in the form of heterogeneous, firm specific resources having VRIN characteristics – valuable, rare, inimitable, and non substitutable. Through this focus RBV can clarify the important differentiating aspects of strategy and how to maintain and lever them for sustainable competitive advantage.

The focus on resources, although not denying but still have a tendency to loosing in sight the fact that what a firm actual does or can do, that is, the type of practices it is performing or can perform, or the organizing of processes as systems of activity to realize certain operationally valuable goals, is the touchstone of what it can accomplish economically. The RBV defender could of course say that efficient and excellently performed practices and processes are eminent examples of resources. But the question is whether if this subsumptive conceptual strategy is explanatory helpful. We believe that it is theoretically more fruitful to recognize a practice based view of the firm and strategy (PBV) as a variant or modification of RBV.

From capabilities to practicesⁱ

It is fruitful to make a distinction between capabilities and dynamic capabilities. Capabilities is what a firm can do, in other words the performance of different business practices that in different ways, and in coordination, contribute to the creation of value for customers.

Dynamic capabilities is what a firm can do in the area of innovation, e.g. product development practices, or learning processes and practices for improving on what it does (e.g. benchmarking, learning by doing), that can be seen as its different types of business practices.

Capabilities come close to organizational routines (Nelson&Winter, 1982), routines as codified and/or institutionalized ways of doing things that is a form of practices. But capabilities are in many cases at a level of abstraction from concrete business operation and including an assumed potentiality of what a firm would be able to do. To this extent it is not directly observable and recordable.

It is significant that Eisenhardt&Martin (2000: 1106) assume an organizational and empirical perspective rather than an economic and formal modeling perspective. This enable them to recognize that dynamic capabilities consist of specific business processes which often have extensive empirical research streams associated with them, and there are “best practice” in their performance. The introduction of the concept of “best practice” and its connecting to dynamic capabilities as these authors do based on empirical findings from research, also have theoretical implication that challenge some basic assumptions of RBV. Firstly, there are commonalities across effective firms in capabilities or performance of different business processes, both operative processes as well as innovative processes. Secondly, there are equifinalities of different development paths, implying that firms starting from different points of departures and moving along different tracks still are moving in similar directions in terms of “best practice” features of processes. Thirdly, firms are able to emulate elements of better practices of other firms through different kinds of learning processes. Besides research results, the whole idea of benchmarking testify to this fact (e.g. see Zairi, 1999, 1996), as well as ideas connected to industrial district and cluster approaches.

Practices is what a firm is actually doing or have done so that there is a record of performance as well as some element of continuity in behavior and its results (otherwise it hard to recognize as “a practice”, not only sporadic behavior). Best practices are business practices

that can be found in a population of firms that can show a track record of comparatively very high operational performance of the particular business practice or process in the population.

Eisenhardt&Martin (2000) is somewhat wavering in the implication for maintaining, moderating, limiting or even leaving RBV. As dynamic capabilities cannot have VRIN characteristics, one possible implication is that their connection to resources is the crucial issue; “the value for competitive advantage lies in the resource configurations that they create, not the capabilities themselves” (ibid: 1106). In other formulations dynamic capabilities attain a more important role for competitive advantage. It lies in using dynamic capabilities “sooner, more astutely, or more fortuitously than the competition”, e.g. product development practices, to create resource configurations that have that advantage (ibid: 1117). And in high velocity markets, they argue that the RBV framework breaks down, as the firm must rely on dynamic capabilities in the form of simple selection oriented routines focused on rapidly seizing opportunities for more temporary and transient advantage rather than resource building and leveraging. From a PBV point of view, these arguments indicate the importance of moving closer to best practice in performance of different business process. Furthermore, if operational performance of business practices is focused on, there is a further issue what features are most important for efficient operation. Sticky, firm specific resources are the RBV answer that research has proved to be important, but there may also be other features. There is also the further issue concerning where the capabilities come from. It is generally acknowledged in research that these often intangible or tacit capabilities are developed through experiential learning or learning by practicing, something that a practice based view can account for.

Insert Table 1 about here

Does this mean that RBV is to be replaced by PBV? Barney in commenting on the article tries to realign the arguments of Eisenhardt&Martin (2000) to the RBV camp. The application of dynamic capabilities “sooner, more astutely, or more fortuitously” is itself a capability or a matter of luck, something that the traditional RBV logic can account for. Also the ability to be alert to changes and change quickly and the value of these capabilities depending of market context is according to Barney is “perfectly consistent with traditional RBV logic” (Barney, 2001: 631). Although we believe Barney’s discussion too easily subsumes the arguments under the RBV hat, we will not in this context take the argument further. It should be recognized that RBV is relevant in the sense that efficient practices and processes can be acknowledged as types of resources, as well as are using resources in its performance. The theoretical and empirical issue is how far this is helpful for explaining and guiding strategic management in creating competitive advantage. In this context we will only point to some significant differences in emphasis between RBV and PBV, see Table 1, seeing it as too early to take a stand to what extent PBV should be given an independent status or seen as a variation of RBV.ⁱⁱ

Conceptualizing and modeling a practice based view

It should be noted that PBV and its modeling creates conceptual, theoretical and measurement problems of its own.

There is a distinction between *Best practices* and *Good practices*. Best can be defined in relation to the specific business process. It was first defined pragmatically (e.g. see Rescher,

1977) in terms of operational performance of the business process where it is used. It can be a combination of common and more firm specific elements, but empirical research indicate as Eisenhardt&Martin (2000) say that there are significant common features in business practices. It is very difficult to observe best practice, so an alternative is to define levels of good practice

International research on business capability issues demonstrates that there is a link between the practices adopted and processes within businesses and their performance. Those businesses that adopt a coordinated and cooperative approach to development generally outperform firms that do not follow this approach. This coordinated and cooperative approach has often been denoted “best practice” (Knuckey et al, 1999:19)

The cooperative way is the one in which firms and their employees undertake business activities in all key processes – leadership, planning, people, customers, suppliers, community relations, production and supply of products and services, and the use of benchmarking. These practices, when effectively linked together, can be expected to lead to sustainable world class outcomes in quality, customer services, flexibility, timeliness, innovation, cost and competitiveness. (Barney, J, 1991; Australian Manufacturing Council, 1994)

The logic behind best practice is simple. Because operational outcomes are key contributors to competitiveness and business performance, and because best business practice should improve operational outcomes, good practice should lead by implication to improved competitiveness. Best practice should lead to world class performance. (Kaplan, R S, & Norton, D P, 1996; Knuckey et al ,1999:23; Kotter, J P & Heskett, J L, 1992; Prahalad, C K & Hamel, G, 1990)

However, in the past few years, the notion of “best practice” has increasingly become recognized as a moving target. What was earlier considered as best practice is not necessarily today regarded as best practice. Similarly, in attempting to manage the complex relationships between and within firms, there is no single set of “best practices” – there are too many variables. Instead, we speak of good practice, business improvement and business excellence. These are practices that jointly appear to provide firms that adopt them with an advantage over those that do not. (Lamming, 1996)

Good business practices can be regarded as the base or foundation on which the firm’s distinctive capabilities and competitive advantages are built. So to maintain these and to develop them further demands a continual reinvestment and development of processes and practices (Normann, R & Ramirez, R, 1994). The reputation of a firm, for example, is a function of its history in areas such as customer service practices, customer satisfaction and delivery performance. But reputation does not last forever - it needs to be assessed and possibly enhanced. (Senge, P M, 1990)

If we visualize a firm’s ultimate goal as international competitiveness, we can picture business practices as segments of the base of a globe. Each segment needs to be in place and effectively linked with others to provide a strong foundation. The absence of one may make the whole break down, thus threatening competitiveness and stability. Firms that are successful in achieving this leverage could be assumed to have the characteristics of learning organizations. (Knuckey et al., 2002)

RESEARCH QUESTION AND METHODOLOGY

The research questions covered in this paper are:

- Does managers' attitude to their practices contribution to competitiveness differ depending on their strategy focus and use of Best Business Practices?
- Is it a difference between managers opinion depending on the size of their firm?

The approach for answering this question is to use empirical data collected by the use of a Best Business Practice Survey (BBPS) and analyze if managers of firms that hold a higher focus on strategy factors also have practices in place to support their strategy hold the attitude that these have competitive and also hold a positive attitude toward these practices contribution to their firms.

The business practices and performance model

The Swedish research team chooses to use a questionnaire, adopted from the Business Practices Models used in the *Leading the Way* (1994) and *Gearing Up* (1999) studies, with some adaptations to the Swedish context. There were two reasons for this choice:

1. The models had worked well in practical surveys
2. It made comparisons possible between Swedish and New Zealand data.

The 1999 survey model comprises key modules or components:

- Structure
- Strategy
- Practices
- Outcomes
- Business results

Structure denotes data of size and industry. **Strategy** relates mainly to the choice of products, markets, positioning and focus. The traditional list of competitive priorities was examined: i.e. cost, quality, flexibility, delivery and innovation. Strategizing encapsulates

Leadership & planning activities in the firm. It examines the nature of direction setting, whether it is long-term and consultative, and whether it facilitates firm culture and values, and the relationship of the business with its community.

Insert Figure 1 about here

Structure, strategy, practices and outcomes are obviously inter-related. The inter-linking of these components represents the dynamic nature of business, where components rarely operate in isolation in the long run. For example, the focus of practices built up by the firm often reflects its business strategy. In this paper the element 'Business Assets and structure' will not be covered.

ASSESSING BUSINESS PRACTICES AND PERFORMANCE

The study was based on a comprehensive survey questionnaire developed in New Zealand, and based on the structure of Business Practices and Performance Model. Respondents were asked questions on each element of the model. Questions on strategizing and practices required subjective responses while questions that examined operational outcomes in some cases required quantitative responses.

In analyzing the results, questions were grouped into six categories of processes: Leadership & planning, Customer focus, Quality & supplier focus, Employee practices, Information & benchmarking, and Innovation & technology.

The questions were generally based on a Likert-type (rating) scale, with the response to each question then scored on a range between zero and one with the "worst" answer given the

value of zero and the “best” answer a value of one. A similar scoring system was used for questions on operational outcomes.

Insert Figure 2 about here

These scores were then summed for each firm across the different practices. Each practice score was standardized to give it a value of 100. The six practice scores were then summed and standardized to provide a single score out of 100 for overall practices. The same procedure was applied for operational scores.

This scoring system resulted in two main indexes (see Figure 2):

- the strategizing/practices index provides an overall assessment of an enterprise’s efforts to achieve business improvement (should be read as strategizing AND practices index)
- the operational outcomes index provides an overall assessment of the extent to which practices have been converted into operational outcomes.

When assessing the progress of a firm, both indices are considered simultaneously.

Businesses with high scores in strategizing have made the most progress in adopting the full range of these practices. If they also have a high score on the operational outcomes index, this indicates that their practices are being converted into outcomes.

The progress of each firm towards sustainable advantage can in this model be indicated by plotting its position on a set of axes representing Business practices and Operational outcomes. The horizontal axis represents the strategizing/practices index values, and the vertical axis represents the operational outcomes index values. The closer a plant is to the top right-hand corner of the graph, the closer it is likely to be achieving sustainable high performance. The graph of the distribution of firms according to their scores is shown in Fig.

3. This shows the expected “oval” form indicating that good outcomes are associated with good practices.

Empirical Data

Data for this study was gathered through five postal surveys among manufacturing business owners/managers in the middle part of Sweden.

The data was gathered in four regions and one city during the years 2001 to 2003. The actual regions were West Sweden (2001), The County of Örebro (2001), The county of Dalarna (2002), The County of Sörmland (2002/2003) and the City of Gothenburg (2003).

The Questionnaires were sent to all (2107) manufacturing sites with ten and more full time employees in these five regions. The questionnaires were addressed to the manager/owner of the sites. After one to two postal reminders, a total of 741 filled in questionnaires were returned in such a good quality that they could be used. Respondents who failed to present complete information were excluded.

So in total, responses from 741 manufacturing sites firms (460 small, 206 medium and 75 large) are discussed here, resulting in an overall response rate of 35,2 %. The size definitions are small (10-49 employees), medium sized (50 – 249 employees) and large (500+ employees).

Insert Table 2 about here

RESULTS AND DISCUSSION

Distribution of the results

The distribution of the results in relation to the indexes *Operational outcomes* and *Practice* is shown in the graph below. The regression equation is:

$$\text{Operational outcome} = 42,7 + 0,359 \text{ Practices}$$

with $S = 9,00060$ $R\text{-Sq} = 23,9\%$ $R\text{-Sq}(\text{adj}) = 23,8\%$

Insert Figure 3 about here

Class 1 - World Class

Thirty-nine (39) of the work sites (5,3 %) have both practices and outcomes of 75 or higher. This group of firms is likely to be international competitive and compare to the world's best. In this group are 46,2 % small, 25,6 % medium sized and 28,2 % large firms

Class 2 - Firm Foundation

Three hundred-and-eleven (311) of the work sites (42,0 %) have practice and outcomes of 60 or more. These firms have a strong foundation of practice and performance but world class performance is likely to require a continued focus on improvement. In this group are 47,6 % small, 34,4 % medium sized and 18 % large firms

Class 3 - Over Performers

One hundred and sixty-nine (169) of the work sites (22,8 %) have strong operational outcomes (scoring 60 or more) which may not be based on best practice techniques. In the long-term, these outcomes may not be able to be maintains without improvements to practices. In this group are 79,9 % small, 19,5 % medium sized and only 0,6 % (1 firm) large firms

Class 4 – Under Performers

Sixty-four (64) of the work sites (8,6 %) have a good foundation of practice (scoring 60 or more) but do not have operational outcomes to the same level. In time these practice should result in improved outcomes. In this group are 54,7 % small, 39,1 % medium sized and 6,3 % large firms

Class 5 – Weak Foundation

One hundred and fifty-eight (158) of the work sites (21,3 %) show both practices and outcomes below 60. These sites should look to extensively develop their capabilities to enjoy improved operational outcomes. In this group are 78,5 % small, 19,6 % medium sized and 1,9 % large firms

Important Factors in Business Strategy

The firm managers answered one question about how important different factors are for their business strategy. As can be seen in table 3 most of them claimed that the factors are very important. As many as 100 (13,5 %) mean that all five factors are very important while only 4 of them claim all five was not important at all in their business strategy.

Insert Table 3 about here

As further can be seen in the table was innovation the factor that have the less portion of managers that claim that the factor is very important.

Here I therefore take innovation as an example to examine if the strategy focus seems to influence how well the firms have implement the practices related to the strategy.

Figure 4 show the mean values on the sub index innovation and technology for the firms that indicated different degree of importance on innovation in their business strategy. As can be seen the ones that think innovation are very important have the highest mean value and then the mean values decrease with less and less importance. This shows that managers that hold

innovation as an important strategy factor also implement practices that support innovation and technology.

Insert Figure 4 about here

The next question is: Do they think that Innovation has been to a great help in their competitive positioning?

I will use the answers to question 12.2 (figure 5) to analyze that.

Insert Figure 5 about here

Figure 6 shows that it was only 30,9 % of all respondents that hold the opinion that innovation have been greatly helpful. That figure rank innovation as the third less helpful factor according to all respondents.

Insert Figure 6 about here

Analyzing the share, of firms that holds the attitude that respectively factor have been greatly helpful in improving the business's competitive position, for the two groups World Class and Weak Foundation shows that there are great differences (figure 7)

Insert Figure 7 about here

Measuring the distance between World Class Firms and Firms on Weak Foundation by dividing the figures for World Class with the figures for Weak Foundation shows how many times larger the portion of World Class firms are that hold the attitude that the factors have been greatly helpful in improving the business's competitive position (see figure 8).

Insert Figure 8 about here

As can be seen, the largest distance is on Innovation and Technology followed by Information and Benchmarking. Earlier analysis of data from one of the regions (Ahlström Söderling 2003) indicated that, accepting the assumption that market leaders have some competitive advantages, *Market leaders* more often use benchmarking and also seems to be more innovative by introducing new products as well as new processes.

The last question then is:

Do the firms, that claim that innovation has been greatly helpful, have practices in place to support innovation?

A way to analyze that is to look at the distribution on the sub index Innovation and Technology for the two groups greatly helpful vs. the rest of firms.

Insert Figure 9 about here

As figure 9 shows have 66,0 % of the "greatly helpful" firms' index values above 60 while the other group only have 29,8 %. This indicates that the managers that claim that innovation and

technology has been greatly helpful to the improvement of their firm's competitive position have practices in place for innovation and technology.

CONCLUSIONS

The empirical data indicate that the focus on strategic factors influence the implementation of practices and that the managers impression on how the results of the practices contribute to the firms competitive position is a function of the operational outcomes of well implemented practices.

The other initial question: Is it a difference between managers opinion depending on the size of their firm have not been addressed in this paper but the data show no significant difference between managers in different firm sizes.

REFERENCES

Ahlström Söderling, R.(2003) *Does Benchmarking Support Innovation That Leads To Competitive Advantages? : Some observations in a study of manufacturing companies' use of best practices.* The Symposium on the Entrepreneurship-Innovation-Marketing Interface, Karlsruhe, Germany, October 9-10.

Australian Manufacturing Council (1994) *Leading the Way – A Study of Best Manufacturing Practices in Australia and New Zealand*, Melbourne.

Barney, J. (1991) Firm Resources and Sustained Competitive Advantage, *Journal of Management*, Vol. 17, pp. 99-120.

Barney, J. (2001) Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view, *Journal of Management*, Vol. 27, pp. 643-650.

Barney, J., Wright, M. & Ketchen, D. (2001) The Resource-based view of the firm: Ten years after 1991, *Journal of Management*, Vol. 27, pp. 625-641.

Business Practices and Performance Survey – 2001. Background and preliminary results, April 2002.

Eisenhardt, K. & Martin, J. (2000) Dynamic Capabilities: What are they?, *Strategic Management Journal*, vol. 21, pp. 1105-1121.

- Grant, R. (1991) The Resource-based Theory of Competitive Advantage: Implications for Strategy, *California Management Review*, Vol. 22, pp. 114-135.
- Hamel, G. & Prahalad, (1990) The Core Competence of the Corporation, *Harvard Business Review* vol. 68, Issue 3, pp. 79-92.
- Kaplan R S and Norton D P (1996), "Using the Balanced Scorecard as a Strategic Management System", *Harvard Business Review*, January-February, pp 75-85.
- Knuckey, S., Leung-Wai, L. & Meskill, M. (1999) *Gearing Up. A Study of Best Manufacturing Practice in New Zealand*. Ministry of Commerce, New Zealand (aug.).
- Knuckey, S. & Johnston, H. (2002) *Firm Foundations. A Study of New Zealand Business Practices & Performance*. Wellington: Ministry of Economic Development.
- Kotter J P and Heskett J L (1992), *Corporate Culture and Performance*, Free Press, New York.
- Lamming R (1996), "Squaring lean supply with supply chain management", *International Journal of Operations & Production Management*, Vol.16, No.2, pp 183-196.
- Nelson, R. & Winter, S. (1982) *An Evolutionary Theory of Economic Change*. Cambridge, MA: Belknap.
- Penrose, E. (1959) *The Theory of the Growth of the Firm*. New York: Wiley.
- Porter, (1996) What is strategy? *Harvard Business Review*, vol. 74, Issue 6: pp 61-79
- Prahalad C K and Hamel G (1990), "The core competence of the corporation", *Harvard Business Review*, May-June, pp 79-91.
- Priem, R. & Butler, J. (2001) Is the Resource-based 'view' a useful perspective for strategic management research? *Academy of Management Review*, Vol. 26, pp. 22-40.
- Rescher, N.(1977) *Dialectics: A Controversy-Oriented Approach to the Theory of Knowledge*, New York: State University of New York Press
- Senge P M (1990), *The Fifth Discipline: the art and practice of the learning organization*, Doubleday, New York.
- Teece, D., Pisano, G. & Shuen, A. (1997) Dynamic Capabilities and Strategic Management, *Strategic Management Journal*, vol. 18, pp. 509-533.
- Tidd, J., Bessant, J. & Pavitt, K. (2001) *Managing Innovation. Integrating Technological, Market and Organizational Change*, 2nd ed. Chichester: John Wiley.
- Wernerfelt, B. (1984) A Resource-based View of the Firm. *Strategic Management Journal*, Vol. 5, pp. 171-180.

Williamson, O. (1999) Strategy research: Governance and competence perspectives. *Strategic Management Journal*, Vol. 20, pp. 1087-1108

Zack, M. (1999) *Knowledge and Strategy*. Boston: Butterworth-Heinemann.

Zairi, M. (1999, 1996) *Benchmarking for Best Practice*. Continuous learning through sustainable innovation. Oxford: Butterworth-Heinemann.

Table 1: Comparison of Resource based view and Practice based view from a strategic perspective

	Resource based view	Practice based view
Conceptualization of the firm	Bundle of resources	Network of business practices
Basis of competitive advantage	Firm specific assets	Operational efficiency in performance of practices
Measure of competitive advantage	VRIN (valuable, rare, inimitable, no substitutable resources/resource combinations)	Closeness to best practices in different process areas, coordination of practices
Process of strategy development	Path dependence	Equifinality of paths
Development of competitive advantage	Dynamic capabilities as ability to use and develop resources	Learning approaches and practices to improve existing business practices

Figure 1: Business Practices and Performance Model (Source: Knuckey et al., 2002)

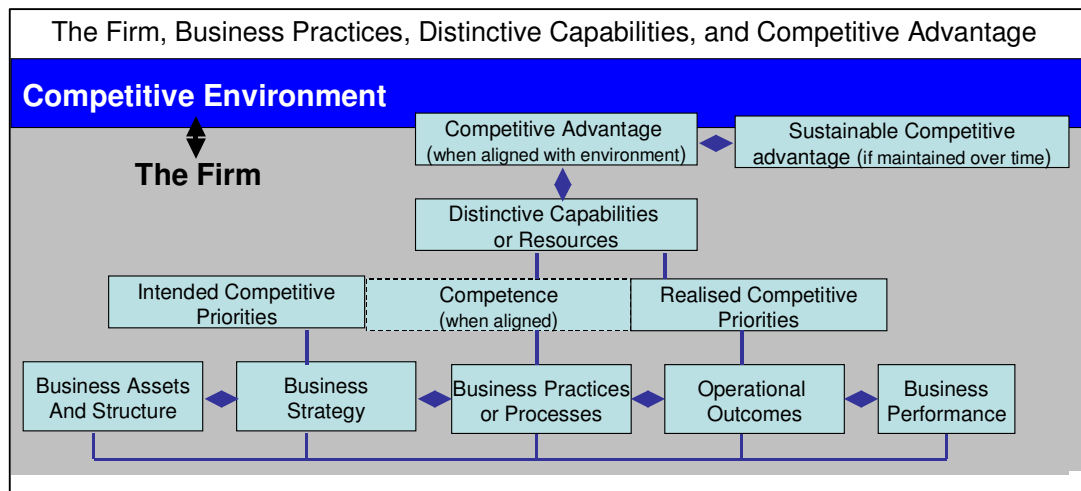


Figure 2: Calculation of the indices (Source: Knuckey et al., 2002)

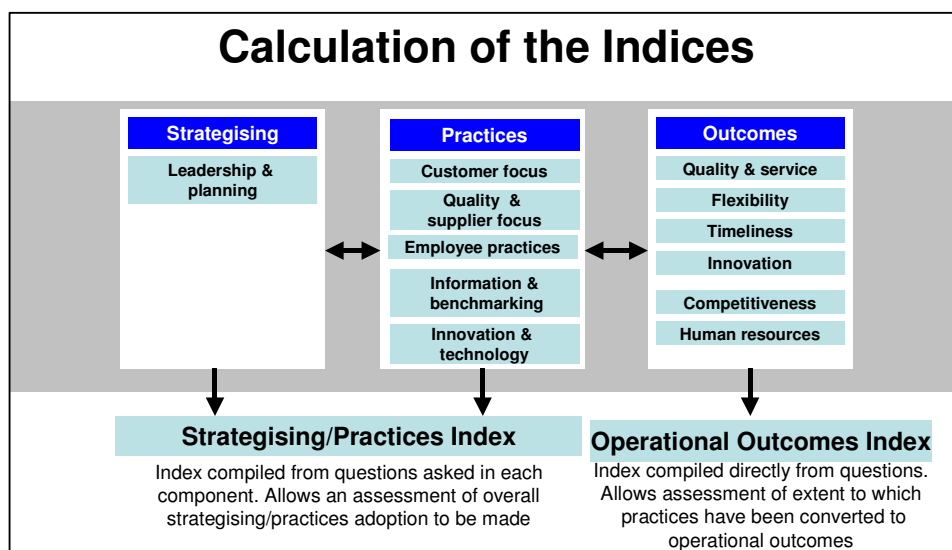


Table 2 Some data from the different studies

Region	Questioners sent out	Used responses	Response rate	Share of total
Dalarna	327	127	38,9 %	17,1 %
Gothenburg	665	207	31,6 %	27,9 %
West Sweden ¹	536	172	32,1 %	23,2 %
Örebro	304	153	50,3 %	20,6 %
Sörmland	275	83	30,2 %	11,1 %
Total	2107	741	35,2	100 %

¹ Norra bohuslän, Dalsland, Fyrstad and Sjuhäradsbygden but not Västra and Östra Skaraborg

Figure 3 The relationship between practices and operational outcomes

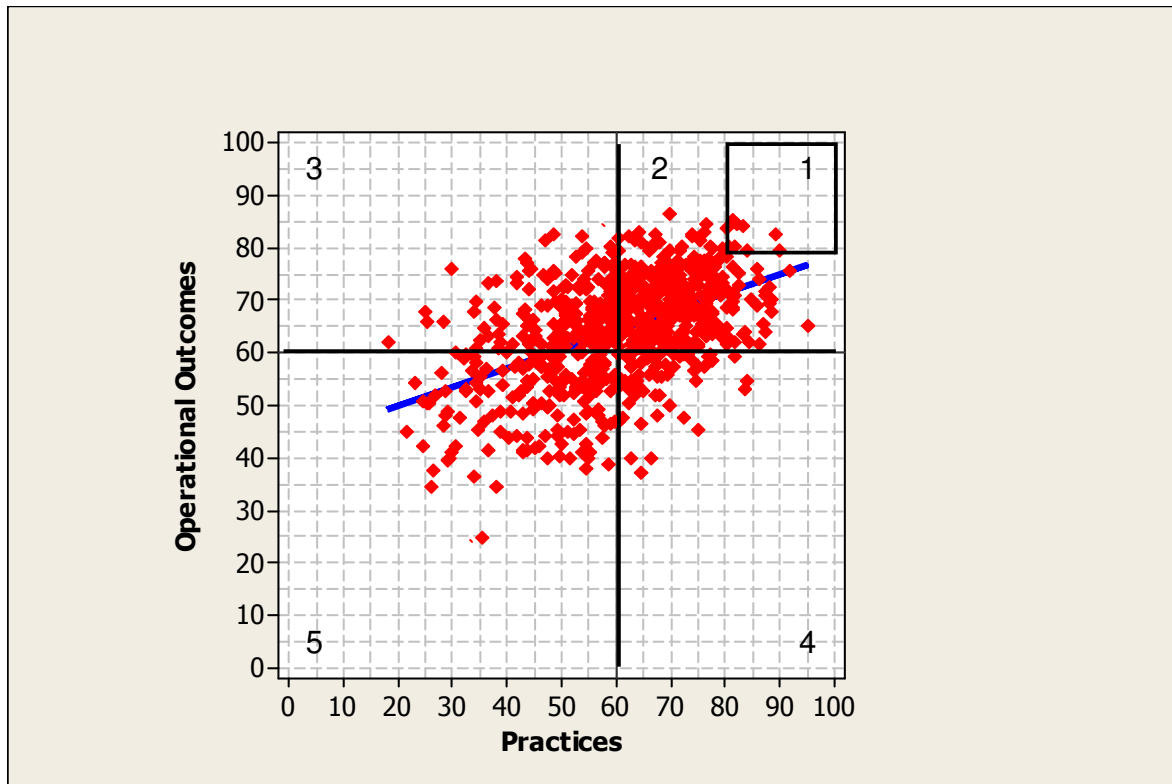


Table 3 How important are the following types of strategy for your business

	not at all important	a little important	moderately important	very important	don't know	N	N*
Price	0,0%	2,0%	23,5%	74,3%	0,1%	735	6
Quality	0,0%	0,1%	5,0%	94,6%	0,3%	738	3
Flexibility	0,0%	2,4%	31,0%	65,9%	0,7%	735	6
Delivery	0,6%	1,1%	16,9%	80,7%	0,8%	724	17
Innovation	0,5%	9,9%	40,5%	48,1%	1,0%	736	5

Figure 4 Mean Values for subindex Innovation and Technology for different opinions of the importance of innovation in firm strategy

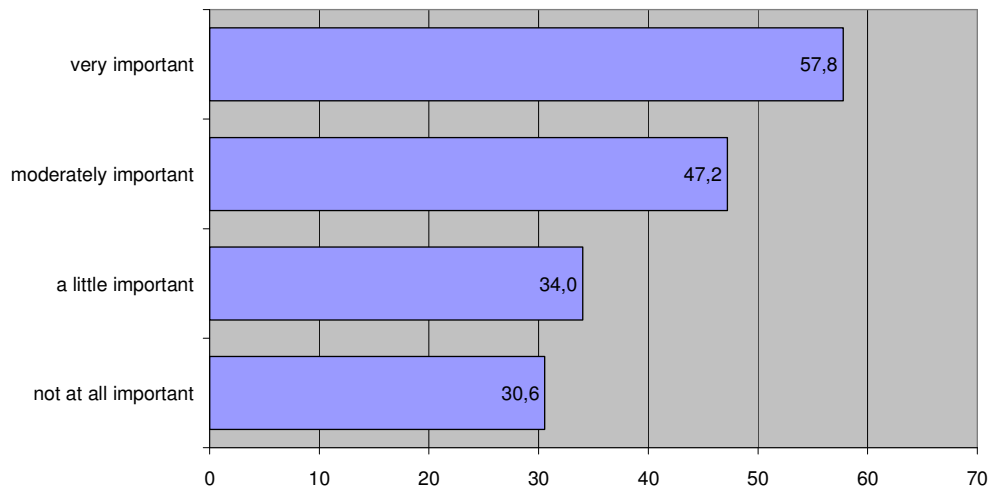


Figure 5 Question 12.2 in the questionnaire

12.2 Tick one circle for each item
Over the LAST THREE YEARS how helpful has each of the following been in improving this business's competitive position:

	not at all helpful	a little helpful	moderately helpful	greatly helpful	don't know
- leadership and planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- innovation and technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- employee relations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- supplier relations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- customer relations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- operations and quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
- information and benchmarking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 6 Share of the respondents that claim that the factor has been greatly helpful

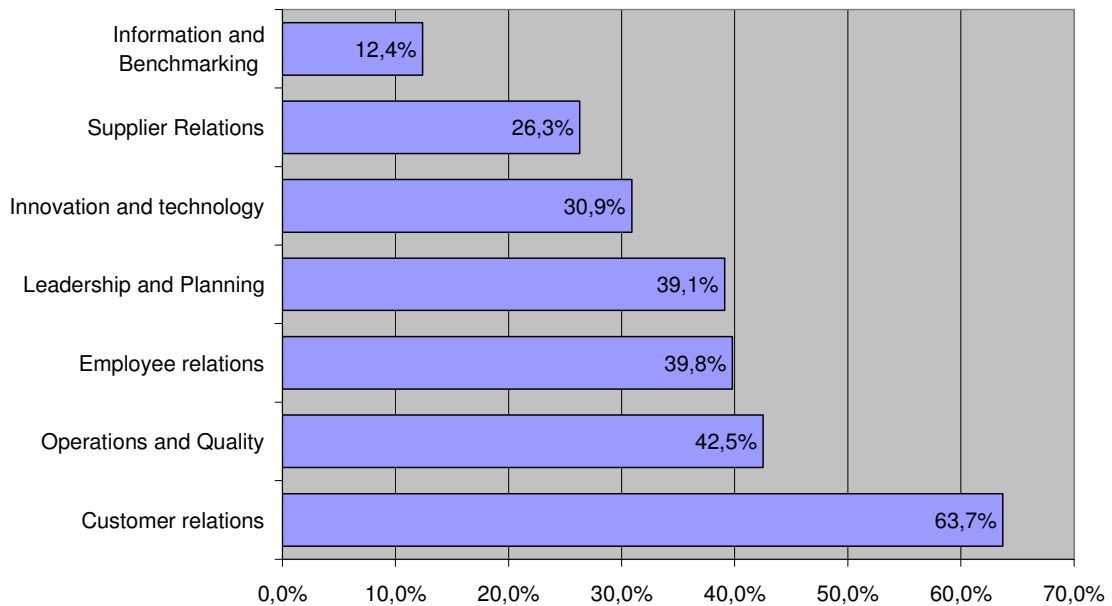


Figure 7 Share of World Class respectively Weak Foundation Firms

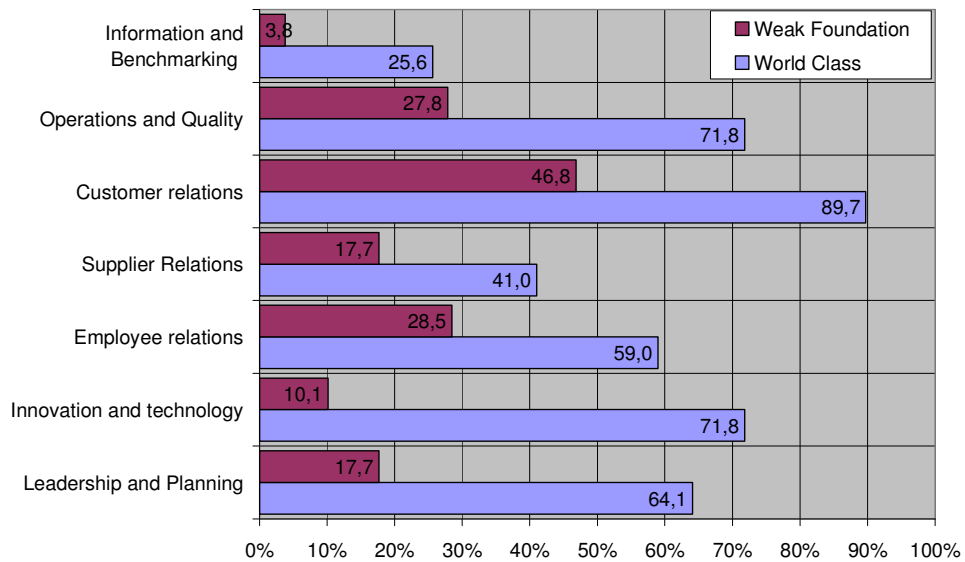


Figure 8 Relative distance between World Class and Weak Foundation Firms

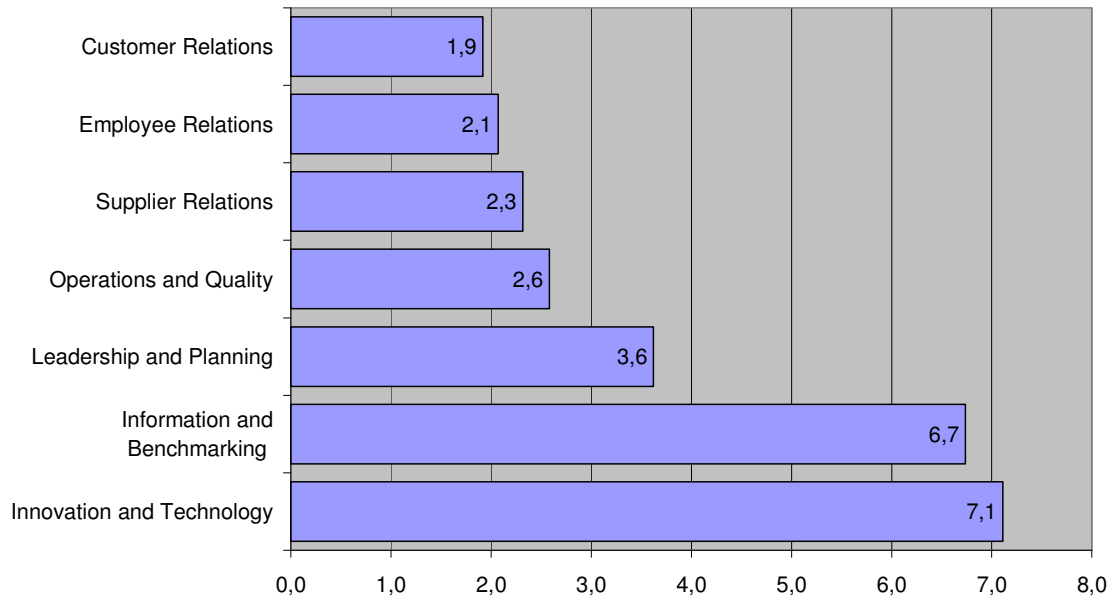
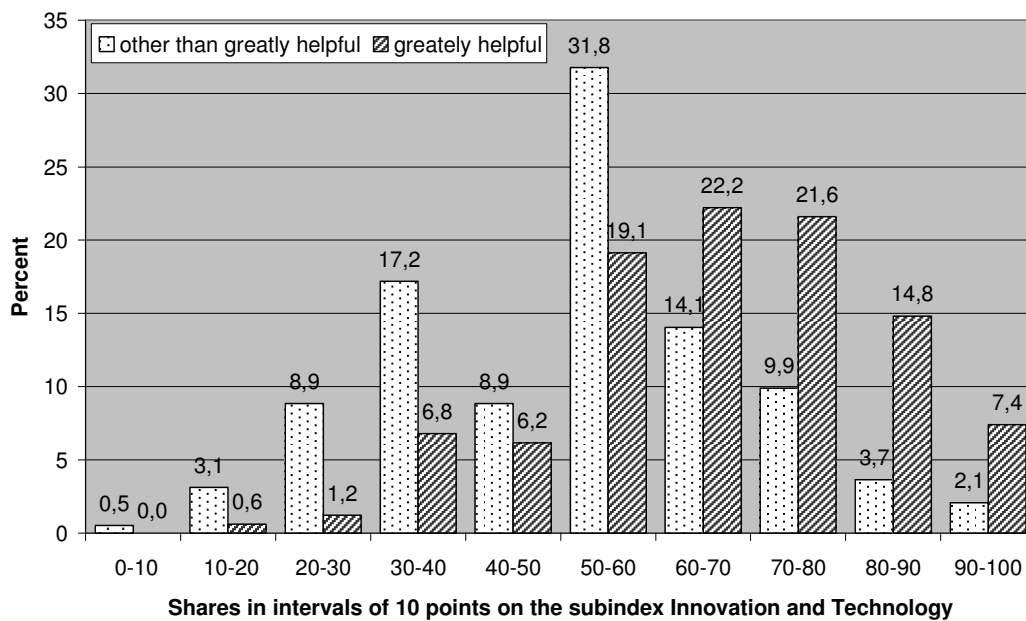


Figure 9 Distribution on the sub index for Innovation and Technology for firms with the attitude that innovation has been greatly helpful in relation to the rest firms



ⁱ This discussion is in some parts earlier published in a working paper by Ragnar Ahlström Söderling, Erik Lindhult, Jan Sundqvist, Per Magnus Wijkman presented at 17th Nordic Conference on Business Studies in Reykjavik, 14-16th of August 2003

ⁱⁱ Another interesting theoretical issue is the relation of PBV to a Schumpeterian, evolutionary view (Nelson&Winter, 1982) also popular today. The importance in PBV of innovation in the sense of improving operational performance of business process in line with best practice is an interesting link to such a view.