Anders McIlquham-Schmidt

A meta-analytical review of the relationship between strategic planning and corporate performance

Department of Management
A meta-analytical review of the relationship between strategic planning and corporate performance

Anders McIlquham-Schmidt
Aarhus School of Business, Aarhus University, Denmark

Abstract
The majority of management literature describes strategic planning (SP) as being effective in relation to improving corporate performance (CP), but is that assumption correct? Several studies have shown that the relationship is dubious if not non-existent. To clarify the relationship a comprehensive meta-analysis was conducted on 88 individual studies representing a total sample size of 32,472 observations. The findings of the meta-analysis suggest that strategic planning does in fact have a positive effect on corporate performance, although it is smaller than the strategic management literature existing to date has proclaimed it to be. Explanations of the unexpected result and directions for future research will be provided.

INTRODUCTION
Strategic planning (SP) is an effective way of improving corporate performance (CP); this, at least, has been the general perception in the strategic management literature to date. A closer look at the empirical literature on the subject reveals a more diverse picture. The results are not equivocal; some studies show that there is a positive relationship between SP and CP (e.g., Bracker & Pearson 1986; Pearce et al. 1987a; Hopkins & Hopkins 1997), while others show that the relationship is inconclusive (e.g., Fulmer & Rue 1974; Kallman & Shapiro 1978; Gable & Topol 1987; McKiernan & Morris 1994). Others again even show that the relationship is negative (e.g., Sheehan 1975; Fredrikson & Mitchell 1984; Whitehead & Gup 1985).

A situation like this is undesirable for academia and for practice: when research results differ for no apparent reason, it hinders the fruitful development of the research field to the disadvantage of both researchers and practitioners.

Rectifying the situation requires a thorough re-examination of the previous research, an all-encompassing review that will clarify the actual state of the relationship.

The purpose of this article is to report on the results of a meta-analysis that was conducted to appraise the state of the art within the strategic planning and corporate performance research field. An extensive literature search (McIlquham-Schmidt 2005) has shown that a considerable proportion of the studies on the SP-CP relationship made between 1956 and 1994 are missing from previous reviews of the topic (meta-analyses made by Miller & Cardinal 1994; Greenley 1994).

Furthermore, several studies that have tried to illuminate the SP-CP relationship have been published since the last integrative reviews were published in 1994. These studies are, for obvious reasons, also not included in the aforementioned integrative reviews. This article presents the results of a meta-analytical review of 88 studies of the SP-CP relationship from the period 1956 to 2003.
Meta-analysis (Hunter et al. 1982; Rosenthal 1991) has proven to be a useful technique in many research areas where individual studies have come up with inconclusive or conflicting results (e.g., Boyd 1991; Miller & Cardinal 1994; Schwenk & Shradar 1993). By statistically aggregating results across individual studies, meta-analysis allows for much greater precision than other forms of research reviews. The specific objectives of this meta-analysis are to: provide a statistical integration of the accumulated research on the relationship between SP and CP, and to examine the influence from moderators (such as time period, journal quality and Terpstra methodology) on the relationship.

THEORY AND HYPOTHESES

The overall strategic planning and corporate performance relationship

A quick look through the management literature provides a description of strategic planning as an effective way of improving corporate performance. Strategic planning is said to result in a better match between external environment variables and the changing internal organizational conditions of the firm. The purpose of this match is to ensure that the plans continuously realign the firm’s objectives and strategies with changing conditions to improve the long-run performance of the company. This interpretation of strategic planning’s fundamental objective can be found in, for example, Ansoff (1979), Andrews (1971), McNichols (1977), Hofer & Schendel (1978), Camillus (1984), and Prescott (1984).

In addition to the general advantages of strategic plans, several specific advantages are presented in the literature. These can be classified into those being concerned with the planning process and those being concerned with the personnel involved in the planning. Writers such as Stern (1966), Loasby (1967), Hausler (1968), Walker (1976) and Wilson (1979) have suggested the following advantages for each of the two types:

Process advantages:
• The identification and exploitation of future marketing opportunities
• An objective view of management problems
• The provision of a framework for the review of plan execution and control of activities
• Minimization of effects from adverse conditions and changes
• Major decisions can be related more effectively to established objectives
• More effective allocation of time and resources to identified opportunities
• Provision of co-ordination of the execution of the tactics of the plan
• Allowing for the combination of all functions into a combined effort
• Lessening of resources and time needed to correct erroneous ad hoc decisions
• Creation of a framework for internal communication between personnel
• The identification of priorities within the timing of the plan
• The utilization of planning provides an advantage over competitors

Personal advantages:
• Helps to integrate the behavior of individuals in the organization into a team effort
• Provides a basis for the clarification of individual responsibilities, contributing to motivation
• Encourages forward thinking on the part of personnel
• Stimulates a cooperative, integrated and enthusiastic approach to tackling problems and opportunities

1 Terpstra is a methodology for evaluating the methodological rigor of studies. For original, see Terpstra (1981); for adaption to strategic planning research see Armstrong (1982) and Greenley (1986).
• Encourages a favorable attitude to change
• Gives a degree of discipline and formality to the management of a business function that would not exist without planning

Further, Armstrong (1982) argued that an explicit planning process, rather than haphazard guesswork, results in the collection and interpretation of data critical to creating and maintaining organization-environment alignment. Similarly, Ansoff (1991) argued that planning generally produces better alignment and financial results than a process of trial-and-error learning.

The benefits of strategic planning were also investigated in two separate surveys by Al-Bazzaz & Grinyer (1980) and Ang & Chua (1979). Although these empirical studies had a different emphasis, they were more concerned with what the respondents perceived the advantages of strategic planning to be.

Al-Bazzaz & Grinyer (1980) found that the areas the respondents perceived as benefiting most from strategic planning were:

- Awareness of problems, strengths and weaknesses 85%
- Profit and growth 48%
- Information and communication 40%
- Systematic resource allocation 35%
- Coordination and control 29%
- Moral and industrial relations 17%

In a similar study Ang & Chua (1979) found the advantages to be:

- The ability to explore more alternatives 66%
- Faster and better quality decision-making 58%
- More timely information 49%
- Better understanding of the business process 45%
- More accurate forecasts 43%
- Cost savings 27%

According to the above-mentioned arguments, there seems to be sound theoretical support for the assumption that strategic planning can and should improve performance.

Despite the intuitive appeal of these arguments, other researchers have countered that explicit strategic planning is dysfunctional, or at best irrelevant. One of the most widely circulated criticisms is that planning yields too much rigidity. Proponents of the “rigidity hypothesis” maintain that a plan channels attention and behavior to an unacceptable degree, driving out important innovations that are not a part of the plan.

Mintzberg (1987) argued “that strategies are to organizations what blinders are to horses: they keep them going in a straight line, but impede the use of peripheral vision.” He offers a succinct summary of this position: “setting oneself on a predetermined course in unknown waters is the perfect way to sail straight into an iceberg.”

Hofer (1976) pointed out that in the early days of strategic planning, planners had to take the positive assumption on faith. “For a substantial time, those involved in the strategic planning area have had to accept as a tenet of faith the belief that strategic planning was indeed worthwhile. This belief was justified with the theoretical arguments of Ansoff and others, but there was no research evidence to provide support for those beliefs.”
It seems that there are justifiable theoretical explanations as to the standpoints of whether strategic planning does or does not have an effect on corporate performance.

To clarify the actual state of the relationship, the first hypothesis to be tested in this article proclaims that:

\[ H1: \text{The relationship between strategic planning and corporate performance is positive across different industries, sizes and study contexts.} \]

**Measurement strategy**
Because performance is such a broad meta-construct, any given study’s operationalization of it may act as an important moderator of the outcome of the meta-analysis.

To test this hypothesis, the entire meta-analytic dataset is broken down into different subsets employing different measurement strategies.

The first subset of measures is to distinguish between two broad subdivisions of CP: the quantitative measures consisting of market- and accounting-based measures, and the qualitative measures consisting of perception-based measures.

The quantitative measure consists of both the market-based and the accounting-based measures. Market-based measures of CP, such as price per share, reflect the notion that the shareholders of the company are a primary stakeholder group that greatly influences the company’s fate and therefore should be of primary concern to the management.

The accounting-based performance measures, such as return on assets (ROA) and return on equity (ROE), reflect a firm’s internal efficiency in some way (Cochran & Wood 1984). Accounting returns are subject to managers’ discretionary allocations of funds to different projects and policy choices, and as a result capture internal decision-making capabilities and managerial performance rather than external market responses to organizational (non-market) actions.

The qualitative measures of CP ask survey respondents to provide subjective estimates of, for instance, “overall firm performance/success relative to competitors” or “the profitability of the company”.

On the basis of these arguments a second hypothesis will also be tested in this article.

\[ H2: \text{There is a greater relationship between strategic planning and corporate performance when the relationship is measured in quantitative terms rather than in qualitative terms.} \]

The second subset of measures that will be reported are individual performance measures such as price per share, ROA, or the profitability of the company. Since the meta-analysis (McIlquham-Schmidt 2005) included a total of 155 different individual performance measures, only the most interesting SP-CP relationships will be reported.

**METHODS**
Prior summaries of the relationship between SP and CP have primarily relied on narrative reviews (e.g., Armstrong 1982; Robinson & Pearce 1984; Shrader et al. 1984; Greenley 1986; Pearce et al. 1987a; Greenley 1994), although some researchers (e.g., Boyd 1991; Miller & Cardinal 1994; Schwenk & Shrader 1993) have approached the question of relationship from a meta-analytical
A common factor for all of the integrative reviews, narrative and meta-analyses is that the samples of studies covered in them were less than complete.

Narrative reviews are literature reviews that attempt to make sense of past findings verbally. The reviews typically use a vote counting methodology as a way of reporting the outcome of the studies. Vote counting method (Light & Smith 1971) refers, in the simplest sense, to the tabulation of significant and non-significant findings.

Unfortunately, the vote-counting method as an integration technique tends to draw false inferences because it does not take into account two important study artefacts: sampling error and measurement error (Hedges & Olkin 1980; Hunter & Schmidt 1990).

The statistical errors in the typical “vote-counting” literature review tend to be more serious than in the average narrative review because the statistical power of the vote-counting procedure decreases as the number of studies reviewed increases (Hedges & Olkin 1980; Hunter & Schmidt 1990).

On the other hand, a meta-analysis enables the researcher to arrive at conclusions that are both accurate and credible.

Search for relevant studies
A comprehensive review should include both an automated and a manual search (Cooper 1984). A search that solely focuses on an automated search eliminates “browsing” or following up on promising leads that arise during a manual search.

The automated search for this research was conducted by using Business Source Premier—a database designed specifically for business schools and libraries—and provides nearly 3,300 full-text scholarly publications in more than 1,000 peer-reviewed journals. In addition to its full-text availability, the database provides indexing and abstracts for more than 4,100 journals. A number of precise search strings were used in the automated free text search.2

The manual search started with outlining the journals that might include SP-CP articles. Researchers (MacMillan & Stern 1987; MacMillan 1989, 1991, 1994) have conducted a series of surveys that depict what the academic community considers to be the most influential journals within the field of strategic management research. These surveys suggested a total of 22 journals that were considered likely to publish studies regarding strategic management.

The first step in the manual search was to look through these journals and find the relevant SP-CP studies. The second step in the search process was to read through the list of references in the procured studies to see if there were any references to other relevant studies and journals. The third step was to read through the list of references in newly procured studies to see if there were any references to other (not yet found) relevant studies and journals. This process continued until no new studies were found.

2 The precise search strings that were used in the automated free text search were as follows: 1) “strategic planning” NOT (DE “strategic planning” NOT AB/TI “strategic planning”) AND performance and 2) “long range planning” NOT AB/TI “long range planning”) AND performance. Other synonyms for SP, such as “planning” or “plan” were also used in separate searches.

The reason for disregarding articles with “strategic planning” or “long range planning” in search words (DE) and in the abstract/title (AB/TI) is that articles that actually have nothing to do with the subject (as perceived in this study) can be classified under these search terms.

If “strategic planning” or “long range planning” are actually mentioned in the text, then the studies might be relevant for the later analysis and worth a second look.
The second and third steps produced some references to studies in journals that were not on the original MacMillan list of journals. Therefore, the manual search process ended up with a search of 47 journals. The time period covered in both the automated and manual search was from 1950 to 2003.

Criteria for relevance
The studies that were found relevant for the meta-analysis had to somehow examine the relationship between SP and CP.

Although any definition is arbitrary, the studies that were considered relevant for inclusion in the basic sample for the meta-analysis were those that used a definition of strategic planning that partly or fully encompassed one of the following elements of the strategic planning process.

1) determine vision, mission and objectives, 2) analyze the environment, 3) analyze the internal resources 4) analyze and select strategic alternatives, 5) implement the strategies and 6) evaluate and control performance.

If a study investigates the relationship between one or more of the above-mentioned elements as well as the performance of a company, it was included in the sample that was subject to the meta-analysis.

Furthermore, the studies had to report two of the following three measures: the sample size used in the study, the level of significance, or the effect size. If two of the three measures are mentioned, the remaining one can be calculated (Rosenthal 1991).

The value of the effect size reported should be either a Pearson-moment correlation $r$, t-test statistic, Chi2-value, F-value or values for mean and standard deviation, all of which can be transformed into a relevant meta-analytical measure for effect size (Z-Fisher) (see Bullock & Svyantek 1985).

Characteristics of primary studies
The result of the combined automated and manual search process was a total of 107 studies that in some way investigate the relationship between strategic planning and corporate performance.

Some of the references that were found in the search process could not be procured for different reasons: they were either too old, unpublished (several doctoral dissertations were unpublished, although some unpublished doctoral dissertations could be procured), or were duplicates of an earlier study published in a different journal, book, or other publication.


As a result of the elimination of the 19 non-procurable or duplicate studies, the accessible population for the article consisted of the following 88 studies. The studies are listed below in chronological order.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Denning &amp; Lehr (1972)</td>
<td>Guth (1972)</td>
<td>Herold (1972)</td>
</tr>
</tbody>
</table>
RESULTS

The overall strategic planning and corporate performance relationship

The general results of the meta-analysis are shown in Table 1. As shown in the table, the calculated correlation coefficient \( r \) for the total dataset (All performance measures) of 278 correlations and the total sample size (N) of 32,372 observations was \( r = +0.0830 \) (\( Z_{Fisher} = +0.0832 \)). A correlation coefficient of +0.0830 is not a very satisfactory result even for a social science study, and the relationship between SP and CP can therefore be characterized as almost non-existent.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Z</th>
<th>p</th>
<th>Z-Fisher</th>
<th>r</th>
<th>r^2</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>All performance measures</td>
<td>32,372</td>
<td>9.59</td>
<td>NA</td>
<td>0.0832</td>
<td>0.0830</td>
<td>0.0069</td>
<td>0.166</td>
</tr>
<tr>
<td>Quantitative performance measures</td>
<td>20,751</td>
<td>10.49</td>
<td>NA</td>
<td>0.1033</td>
<td>0.1029</td>
<td>0.0106</td>
<td>0.207</td>
</tr>
<tr>
<td>Qualitative performance measures</td>
<td>11,721</td>
<td>0.934</td>
<td>0.18</td>
<td>0.0396</td>
<td>0.0395</td>
<td>0.0016</td>
<td>0.079</td>
</tr>
</tbody>
</table>

NA: 0.001 E–100

The seemingly poor relationship between strategic planning and corporate performance is not the whole truth, however, and deserves some further scrutiny. If we look deeper and disaggregate the total dataset “All performance measures” into more specific performance measures, the supposedly poor relationship becomes more diverse.

The first subset of performance measures is the distinction between quantitative and qualitative measures, and the second subset is the individual measures, such as ROE, sales, and others.

Subsets of the strategic planning and corporate performance relationship

Quantitative:

As illustrated in Table 1, the sample size for the qualitative performance measures was 11,721 observations and the effect size was \( r = +0.1029 \) (\( Z_{Fisher} = +0.1033 \)).

The correlation coefficient for the quantitative performance measures is +0.1033, a result that is somewhat better than for “All performance measures”, but still unsatisfactory. The relationship between SP and CP is still almost non-existent.

Qualitative:

As illustrated in Table 1, the sample size for the qualitative performance measures was 11,721 observations and the effect size was \( r = +0.0395 \) (\( Z_{Fisher} = +0.0396 \)).
The correlation coefficient for the qualitative performance measures is +0.0395, a result that is worse than the values for the total dataset “All performance measures” and “Quantitative performance measures”.

So far, none of the results of the three groupings of performance measures support the hypothesis that strategic planning is beneficial to corporate performance.

The second subset of performance measures is the distinction between the performance measures at the individual level.

*Individual performance measures*

The individual performance measures in the meta-analysis consist only of the grouping of exactly the same performance measures from the various studies, such as return on investments (ROI), sales, profit after tax, and others.

The individual performance measures show a much more diverse picture of the relationship between SP and CP. Not all of the performance measures at the individual level support the perception that the relationship is poor.

Even though the effect size is the most interesting value in determining the relationship between SP and CP, it might also be beneficial to take the level of significance into account when evaluating the results.

The significance level determines the likelihood of the result of the performance measure occurring. A performance measure that has a large effect size is less relevant if it is unlikely to occur, or is insignificant. On the other hand, while the magnitude of the effect size determines the strength of the relationship, a performance measure that is highly significant is also less relevant if it has a very small effect size. The ideal combination is, therefore, a performance measure that is simultaneously highly significant and has a large effect size.

The results of the top ten individual performance measures are listed in Table 2; the bottom ten are listed in Table 3.

**Table 2: Top 10 effect sizes.**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Z</th>
<th>p</th>
<th>Z-Fisher</th>
<th>r</th>
<th>r²</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings/Common share</td>
<td>148</td>
<td>1.75</td>
<td>0.0399</td>
<td>1.07</td>
<td>0.79</td>
<td>0.62</td>
<td>2.58</td>
</tr>
<tr>
<td>Return on invested capital</td>
<td>14</td>
<td>2.46</td>
<td>0.0069</td>
<td>0.76</td>
<td>0.64</td>
<td>0.41</td>
<td>1.67</td>
</tr>
<tr>
<td>Return on owner’s investment</td>
<td>41</td>
<td>3.98</td>
<td>0.0001</td>
<td>0.66</td>
<td>0.58</td>
<td>0.34</td>
<td>1.43</td>
</tr>
<tr>
<td>Return on invested capital, Changes in</td>
<td>28</td>
<td>2.92</td>
<td>0.0017</td>
<td>0.63</td>
<td>0.56</td>
<td>0.31</td>
<td>1.34</td>
</tr>
<tr>
<td>Attainment of profit objectives</td>
<td>257</td>
<td>8.72</td>
<td>0.0001</td>
<td>0.56</td>
<td>0.51</td>
<td>0.26</td>
<td>1.18</td>
</tr>
<tr>
<td>Community acceptance</td>
<td>14</td>
<td>1.73</td>
<td>0.0416</td>
<td>0.52</td>
<td>0.48</td>
<td>0.23</td>
<td>1.09</td>
</tr>
<tr>
<td>Service efficiency</td>
<td>14</td>
<td>1.69</td>
<td>0.0454</td>
<td>0.51</td>
<td>0.47</td>
<td>0.22</td>
<td>1.06</td>
</tr>
<tr>
<td>Attainment of corporate objectives</td>
<td>25</td>
<td>7.40</td>
<td>0.0001</td>
<td>0.47</td>
<td>0.44</td>
<td>0.19</td>
<td>0.98</td>
</tr>
<tr>
<td>CEO cash compensation growth</td>
<td>46</td>
<td>3.57</td>
<td>0.0002</td>
<td>0.46</td>
<td>0.43</td>
<td>0.18</td>
<td>0.94</td>
</tr>
<tr>
<td>Rate earned on net worth</td>
<td>38</td>
<td>2.58</td>
<td>0.0050</td>
<td>0.46</td>
<td>0.42</td>
<td>0.17</td>
<td>0.92</td>
</tr>
</tbody>
</table>

The individual data show that there are some interesting candidates that support a more positive perception of the SP-CP relationship.
The quantitative performance measures Earnings per Common share and Return on invested capital both showed a very high correlation coefficient \( r \) of, respectively, +0.79 and +0.64. Return on owner’s investment (+0.58), Return on invested capital, Changes in (+0.56), CEO cash compensation growth (+0.43), and Rate earned on net worth (+0.42) are also supportive of a positive relationship.

Some of the qualitative individual performance measures also showed correlation coefficients that are supportive of a positive relationship. Attainment of profit objectives (+0.51), Community acceptance (+0.48), Service efficiency (+0.47) and Attainment of corporate objectives (0.44).

As can be seen from Table 2, all of the top ten performance measures are significant at the 0.05 level.

On the other hand, some of the individual performance measures showed had a negative correlation coefficient, such as Assets \( r = -0.28 \); Profit as a percentage of sales revenue \( r = -0.16 \); Profit (Net) before tax, Change in (-0.12); Profit after taxes \( r = -0.06 \); Common stock market value \( r = -0.06 \); Profit growth \( r = -0.03 \); and Employment productivity \( r = 0.001 \).

Table 3: Bottom 10 effect sizes.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Z</th>
<th>p</th>
<th>Z-Fisher</th>
<th>r</th>
<th>( r^2 )</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>93</td>
<td>2.72</td>
<td>0.01</td>
<td>-0.287</td>
<td>-0.28</td>
<td>0.080</td>
<td>0.8</td>
</tr>
<tr>
<td>Profit as a percentage of sales revenue</td>
<td>138</td>
<td>1.87</td>
<td>0.03</td>
<td>-0.161</td>
<td>-0.16</td>
<td>0.030</td>
<td>0.32</td>
</tr>
<tr>
<td>Profit (Net) before tax, Change in</td>
<td>138</td>
<td>1.40</td>
<td>0.08</td>
<td>-0.120</td>
<td>-0.12</td>
<td>0.010</td>
<td>0.24</td>
</tr>
<tr>
<td>Profit after taxes</td>
<td>97</td>
<td>1.38</td>
<td>0.08</td>
<td>-0.060</td>
<td>-0.06</td>
<td>0.0001</td>
<td>0.12</td>
</tr>
<tr>
<td>Common stock market value</td>
<td>63</td>
<td>0.47</td>
<td>0.32</td>
<td>-0.060</td>
<td>-0.06</td>
<td>0.0001</td>
<td>0.12</td>
</tr>
<tr>
<td>Profit growth</td>
<td>94</td>
<td>0.44</td>
<td>0.33</td>
<td>-0.032</td>
<td>-0.03</td>
<td>0.0001</td>
<td>0.06</td>
</tr>
<tr>
<td>Employment productivity</td>
<td>53</td>
<td>0.01</td>
<td>0.53</td>
<td>0.001</td>
<td>0.001</td>
<td>0.0001</td>
<td>0.01</td>
</tr>
<tr>
<td>Variability of gross profit</td>
<td>98</td>
<td>0.04</td>
<td>0.48</td>
<td>0.005</td>
<td>0.005</td>
<td>0.0001</td>
<td>0.01</td>
</tr>
<tr>
<td>Profitability</td>
<td>788</td>
<td>0.03</td>
<td>0.49</td>
<td>0.005</td>
<td>0.005</td>
<td>0.0001</td>
<td>0.01</td>
</tr>
<tr>
<td>Profit margin</td>
<td>109</td>
<td>0.06</td>
<td>0.48</td>
<td>0.005</td>
<td>0.006</td>
<td>0.0001</td>
<td>0.01</td>
</tr>
</tbody>
</table>

An interesting observation in the range of individual performance measures is that none of the negative performance measures are qualitative (perception-based) measures.

As can be seen in Table 3, only two of the bottom ten performance measures (Assets and Profit as a percentage of sales revenue) are significant at the 0.05 level.

The lack of statistical significance on some of the the negative outcome of performance measures might raise questions about the validity of the results; even though the 0.05 level is only a conventional agreement, six of the bottom ten are far from being statistically significant at any conventional agreed level.

**File drawer analysis**

A common point of criticism raised against the meta-analytical technique is the availability issue, which states that not all the relevant studies are procured, rendering the result biased and less reliable. This kind of criticism is not specific to the meta-analysis but can be aimed at all types of review analyses, including the commonly-used voting method analysis.

To address the possibility of a sample bias due to problems associated with the procurement of studies to the sample, the “file drawer” analysis (Rosenthal 1979) is usually performed.

A file drawer analysis is not performed in this case, as the essence of the analysis is to calculate the number of studies that are required to be missed in the procurement process or hidden away.
somewhere in file-drawers at research institutions etc., in order to reduce a significant result to a non-significant one.

Since the outcome of this meta-analysis is already non-insignificant, calculating the file drawer analysis does not seem appropriate. Of course a reversed file drawer analysis could be done, calculating the number of significant studies that were “missed” in order to turn the non-significant result into a significant one. First, however, it is difficult to argue why the unidentified number of significant studies was not procured. Second, there should be more significant studies in the file drawers than non-significant ones. One would normally expect that the significant results would be more interesting in research settings, and therefore also more commonly available than non-significant results.

DISCUSSION
Theoretical implications
Based on this meta-analysis integrating 45 years of research, the answer to the hypothesis on the relationship between strategic planning and corporate performance is affirmative. The results of this meta-analysis show that there is a very small but positive relationship ($r = 0.0830$); therefore, strategic planning does improve corporate performance. In that sense, this meta-analysis supports the findings of other meta-analyses (e.g., Boyd 1991; Miller & Cardinal 1994; Schwenk & Shrader 1993), although the correlation coefficient is smaller.

In research settings, an outcome such as this one is less satisfying than one could have hoped for, and it does force the strategic planning research community to re-examine the fundamental assumptions of the research field when conducting research like this. Either the relationship between strategic planning and corporate performance is non-existent (and it is therefore fruitless to try to establish such a relationship), or it does exist but the manner in which previous research has approached the issue may not have been the most appropriate one.

Implications for future research
The lack of a clearer relationship between SP and CP can be ascribed to several problematic issues found within different areas of the strategic planning research field. Some of the issues are fundamental in nature, while others are a question of a less-than-optimal application of appropriate techniques.

At the methodological level, the problematic issue within the research field is associated with the model by which the research is conducted. It is, according to Elster (1989), too “coarse-grained” and allows too wide a gap between cause and effect.

The gap between cause and effect may exist partly because of the lag between cause and effect (for a strategic planning process the time from initiation to completion can be measured in years), and partly because of the dynamics of the environment in which the company operates. The total gap is a combination of the length of lag and the environmental dynamics.

Since the 1950s there has been a steady increase in environmental complexity, and the sole purpose of strategic planning is to plan for the future (i.e., a minimum of three to five years ahead). It is very difficult, if not impossible, to point out cause and effect due to the fact that circumstances will have changed many times during the period.

To close such gaps, the goal for the researcher is to “open up the black box and show the nuts and bolts, the cogs and wheels of the internal machinery” (Elster 1983). In this case, the goal is to empirically verify that strategic planning has a positive impact on the theoretical process and personal advantage elements mentioned by Stern (1966), Loasby (1967), Hausler (1968), Walker (1976) and Wilson (1979), as well as the (managers’) perceived benefits, as mentioned by Al-Bazzaz & Grinyer (1980) and Ang & Chua (1979).
At the more theoretical level, the problematic issues are partly related to the clarity of the definition of the main concepts of strategic planning and performance. Future researchers should be more specific regarding the precise content of the concept of strategic planning they are using, what dimensions they want to emphasize, and so on. This would make it easier for future researchers to evaluate and compare studies.

Furthermore, in relation to the performance concept, the researchers should incorporate at least one generally accepted performance measure (ROA, ROI, sales, etc.) in their studies. As illustrated in Tables 2 and 3, the outcome of the relationship between SP and CP depends on the chosen performance measure. A common performance measure would be helpful when comparing the results across different studies.

Lastly, the lack of relationship could also be ascribed to the fact that the value of strategic planning is diminishing. If all companies in an industry plan ahead, strategic planning would no longer be a “competitive advantage” but rather a “competitive necessity” (Powell 1992b).

**Implications for Managers**

It is more difficult to specify what the implications of these results are for practitioners and managers, since the academic community is apparently still having trouble pinpointing the precise value of strategic planning.

However, some preliminary implications have surfaced. For the majority of performance measures, strategic planning does not have a *negative* influence on corporate performance. The perception that a strategic plan is followed so uncritically as to endanger the survival of a company appears to be greatly exaggerated. Therefore, the proponents of the rigidity hypothesis (e.g., Mintzberg 1987) lack the empirical support for their hypothesis among the procured studies in this meta-analysis.

Furthermore, as regards future research, practitioners and managers should be careful in the selection of which performance measure they intend to use when they seek to measure the effects of strategic planning. The purpose of the strategic planning process should be reflected in the choice of performance measure.

**CONCLUSION**

The answer to hypothesis H1 as to whether there is a relationship between strategic planning and corporate performance would be affirmative. The meta-analysis showed that there is a positive relationship between strategic planning and corporate performance. *However*, it also showed that the relationship is very weak.

If the “All performance measures” can be assumed to represent the whole meta-analysis, then the result of the meta-analysis is an effect size in terms of the correlation coefficient $r = +0.0830$ and on $Z_{Fisher} = 0.0832$.

Even though the relationship exists and is positive, it is definitely not as strong as the strategic management literature would suggest.

An answer to hypothesis H2 as to whether there is a greater relationship between strategic planning and corporate performance when the relationship was measured in qualitative terms rather than in qualitative terms would also be affirmative.

The result of the meta-analysis showed that the effect size for the quantitative measures was $r = +0.1074$ ($Z_{Fisher} = 0.1078$); for the qualitative measures it was only $r = 0.0395$ ($Z_{Fisher} = +0.0396$).
To complete the picture, some individual performance measures did show a very positive relationship between SP and CP. For example, Earnings/Common share showed a correlations coefficient (r) of +0.79, Return on invested capital (+0.64), Return on owner’s investment (+0.58), and Return on invested capital, Changes to (+0.56).

The determination of whether there is a relationship between SP and CP will therefore depend on the performance measure selected.
References


ISBN 9788778824677

Department of Management

Aarhus School of Business
Fuglesangs Allé 4
DK-8210 Aarhus V - Denmark

Tel. +45 89 48 66 88
Fax +45 86 15 01 88

www.asb.dk