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## Research Article

# Does Strategic Planning Improve Organizational Performance? A Meta-Analysis

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**Abstract:** *Strategic planning is a widely adopted management approach in contemporary organizations. Underlying its popularity is the assumption that it is a successful practice in public and private organizations that has positive consequences for organizational performance. Nonetheless, strategic planning has been criticized for being overly rational and for inhibiting strategic thinking. This article undertakes a meta-analysis of 87 correlations from 31 empirical studies and asks, Does strategic planning improve organizational performance? A random-effects meta-analysis reveals that strategic planning has a positive, moderate, and significant impact on organizational performance. Meta-regression analysis suggests that the positive impact of strategic planning on organizational performance is strongest when performance is measured as effectiveness and when strategic planning is measured as formal strategic planning. This impact holds across sectors (private and public) and countries (U.S. and non-U.S. contexts). Implications for public administration theory, research, and practice are discussed in the conclusion.*

## Evidence for Practice

- Strategic planning has a positive, moderate, and significant impact on organizational performance in the private and public sectors, across international settings.
- The findings suggest that strategic planning should be part of the standard managerial approaches in contemporary organizations and contradict many of the critiques of strategic planning.
- The formality of the strategic planning processes (i.e., the extent to which strategic planning includes internal and external analyses and the formulation of goals, strategies, and plans) is important to enhancing organizational performance.
- Strategic planning is particularly potent in enhancing organizational effectiveness (i.e., whether organizations successfully achieve their goals), but it should not necessarily be undertaken in the hope of achieving efficiency gains.

Strategic planning (SP) is one of the more popular management approaches in contemporary organizations, and it is consistently ranked among the five most popular managerial approaches worldwide (Rigby and Bilodeau 2013; Wolf and Floyd 2017). Typically operationalized as an approach to strategy formulation, SP includes elements such as analysis of the organization's mandate, mission, and values; analysis of the organization's internal and external environment; and identification of strategic issues based on these analyses and the formulation of strategies, goals, and plans to address the issues (Bryson 2011). Based on arguments drawn from the Harvard policy model (Andrews 1980), synoptic planning theory (Dror 1983), and goal-setting theory (Locke and Latham 2002), SP can be expected to positively contribute to organizational performance (OP). The Harvard policy model implies that organizational strategies should be geared toward finding a fit between the organization and its environment

(Andrews 1980). Synoptic planning theory argues that strategic decisions should be grounded in thorough analysis and a systematic approach to decision-making (Dror 1983). And goal-setting theory argues that concrete goals, strategies, and plans should be devised to understand what an organization wants to achieve and how (Locke and Latham 2002). SP ideally offers an approach to strategy formulation that includes procedures, tools, and practices geared toward incorporating these theoretical arguments during strategy formulation—although it should be noted that much variation exists in how organizations “do” SP (Bryson, Edwards, and Van Slyke 2018; Ferlie and Ongaro 2015). The popularity of SP seemingly offers credence to the idea that it contributes to OP. After all, why would SP be so popular if practitioners believed it did not provide any benefits?

SP's prominence in the public sector grew apace from the 1980s onward (George and Desmidt 2014).

This momentum was assisted by New Public Management (NPM) and managerial reforms that promoted private sector management practices in public organizations (Hood 1991; Pollitt 1990). The logic behind adopting SP was that if it helped private organizations perform better, then it should do the same for public organizations (Diefenbach 2009). Recent evidence has shown SP's widespread diffusion in the public sector—for example, in Norwegian municipalities (Johnsen 2017), U.S. transit agencies (Poister, Pasha, and Edwards 2013), and Canadian public service organizations (Elbanna, Andrews, and Pollanen 2016). SP has also been central to several public sector reform efforts. Examples include the GPRA Modernization Act in the United States (GAO 2011), Best Value in England and Wales (Boyne et al. 2002), and the Policy and Management Cycle in Flanders (George et al. 2018). These reforms further indicate that SP has been perceived favorably by policy makers and has become a core element of public management (Bryson 2010; Poister 2010).

Importantly, while these reforms were sparked by NPM-type thinking, it should be noted that (a) these reforms mostly focused on one specific aspect of SP (namely, formulating and reporting on goals) and (b) SP existed in different forms in the public sector long before NPM and the argued reforms emerged (Ferlie and Ongaro 2015). In other words, SP is not one invariant thing or tool—as it is often presented by NPM-type reforms—but rather an approach constituting different tools, procedures, and practices that can help organizations establish purposes, goals, and strategies (Bryson 2011). Hence, how SP is conducted in practice is—at least partially—contingent on who is actually doing SP and why, including the training of executives, administrators, politicians, or board members, as well whether a specific form of SP is coerced by an authorizing environment. We will come back to this important nuance later in the article when describing the different operationalizations of SP included in our analysis.

Despite the popularity of SP, its effectiveness has been criticized by scholars of business and public organizations. One of the first and most vocal critiques was articulated by Mintzberg (1994), who argued that SP does not equal or necessarily contribute to strategic thinking. Recently, Martin (2014) emphasized the “big lie of SP” and claimed that SP deceptively lulls managers into believing that strategy can be controlled. Similarly, the politicized and adaptive contexts of public organizations have been argued to militate against its effectiveness (Bovaird 2008; Buller 2015). These critiques point toward the ongoing debate on whether SP “works” (George 2018).

This article addresses the inconsistency between the popularity of SP and its critiques by asking, What is the relationship between SP and OP? A meta-analysis of 31 empirical studies (87 correlations) published in journals in the Social Sciences Citations Index was conducted to answer this question. Meta-regression examined whether this relationship was moderated by the characteristics of both SP and OP, the differences between public and private organizations, the context (geography), and the research designs (the use of cross-sectional surveys and multiple sources of data). The analyses were conducted using Stata, following the recommendations for meta-analyses in public management (Ringquist 2013).

This article contributes to public administration theory, research, and practice in three distinct ways. First, based on empirical evidence in contemporary organizations, it identifies whether SP's popularity is merited. It juxtaposes the proponents (e.g., Bryson 2010; Poister 2010) and opponents (e.g., Bovaird 2008; Martin 2014; Mintzberg 1994) of SP and identifies which of these two perspectives has the most empirical validity. In doing so, it reinvigorates research on SP and proposes fruitful avenues of research. Further, it goes beyond the notion of SP and OP as unidimensional constructs and investigates the role of the different dimensions of both SP (i.e., formality, comprehensiveness and participation) and OP (i.e., effectiveness, efficiency, responsiveness, outcomes, indices of performance and financial performance).

Second, this article, with its meta-regression, makes a further contribution by addressing the long-standing debate on the difference between public and private organizations to assess whether it is a relevant management approach across government and business (O'Toole and Meier 2015; Pollitt 2013). It also examines whether geographic context matters by testing the SP–OP relationship in both the United States and non-U.S. empirical settings. This distinction is included because many SP practices have emerged in the United States.

Third, this article addresses the call for more meta-analytical evidence on effective public management practices (Perry 2012; Walker and Andrews 2015). Such evidence is needed to ensure that public administration remains relevant for practitioners by providing evidence-based recommendations on what works, and when (Perry 2012). By exploring this, our meta-analysis adds to the call for middle-range theorizing that adapts grand theories to the contextual reality of public administration (Abner, Kim, and Perry 2017).

In what follows, the SP–OP debate is outlined, and the moderators are discussed. Then the methods, including the meta-analytic procedure, are described. The results show a significant and positive impact of SP on OP. This is particularly strong when SP is measured as formal SP and when OP is measured as organizational effectiveness. The impact of SP on OP holds for both public and private organizations and in both U.S. and non-U.S. contexts. Research designs drawing on multiple data sources have typically identified smaller size effects. The implications of our findings for public administration theory, research, and practice are discussed in the conclusion.

## Strategic Planning and Organizational Performance

Organizational performance is a central concept of public management research and practice. However, it has been widely debated (Andersen, Boesen, and Pederson 2016; Walker, Boyne, and Brewer 2010). At the heart of this debate is the idea that an extreme focus on efficiency and effectiveness is counterproductive to more democratic outcomes (Radin 2006). However, recent conceptualizations of OP in public organizations have indicated that it is not any one thing. There are different performance dimensions (including democratic outcomes), different stakeholders assessing performance (including citizens), and different sources and types of data to measure performance (Andersen, Boesen, and Pederson 2016; Walker and Andrews 2015; Walker, Boyne, and Brewer 2010).<sup>1</sup>

Although recent conceptualizations of OP have identified several performance dimensions, theories of SP have typically focused on its contribution to overall OP. Specifically, the theoretical logic underlying this relationship is in accord with the Harvard policy model (Andrews 1980), synoptic planning theory (Dror 1983), and goal-setting theory (Locke and Latham 2002). The Harvard policy model argues that organizational success is contingent on the extent to which there is a fit between the organization and its environment, which can be established using tools such as SWOT (strengths, weaknesses, opportunities, and threats) analysis (Andrews 1980). Although this concept originated in the corporate strategy literature, the importance of organization-environment fit has long been argued by public management scholars as well (e.g., Vinzant and Vinzant 1996). Indeed, most approaches to SP incorporate attention to and analysis of both the organization and its environment, including defining strategies to ensure organization-environment fit (Bryson 2011).

Synoptic planning theory argues that a systematic, rational, and analytical approach to decision making generates positive outcomes as opposed to a more intuitive, gut-feeling approach (Dror 1983). This framework has received support from scholars writing about public and private organizations (e.g., Elbanna 2008; Walker et al. 2010). SP offers such an approach to assisting decision making in the context of establishing purposes, goals, and strategies. Indeed, at the heart of many SP processes is a stepwise approach to decision making, incorporating an analysis of the internal and external organizational environment and resulting in informed decisions based on strategic issues (Bryson 2011). SP can thus be viewed as a materialization of the Harvard policy model and synoptic planning theory applied to strategy formulation.

Goal-setting theory proposes that organizations with goals perform better because goals ensure that activities and resources are focused on addressing core issues and employees understand the priorities of the organization (Jung and Lee 2013; Locke and Latham 2002). Scholars writing about both private and public organizations have subscribed to this argument (e.g., Magnan and St. Onge 2005; Stazyk and Goerdel 2011). SP has typically resulted in concrete strategies, goals, and plans aimed at addressing strategic issues (Bryson 2011). It applies aspects of goal-setting theory to strategy formulation by making it clear to the organization and its stakeholders what the organizational priorities are and how these will be addressed.

Although the Harvard policy model, synoptic planning theory, and goal-setting theory would result in the expectation that SP contributes to OP, other theoretical frameworks have suggested the exact opposite. Typically clustered within notions of logical incrementalism (Quinn 1978), these frameworks hold that SP is overly rational, planned, and fixed. Proponents claim that organizations require more flexible, ongoing methods of strategy formulation that are particularly open to emerging strategies rather than planned, deliberate strategies (Mintzberg 1978). Additionally, complexity theory has also argued against SP's effectiveness by indicating that SP might be adept in straightforward, routine organizations but less so in complex organizations, systems, or networks (Bovaird 2008).

If these arguments from logical incrementalism and complexity theory hold, SP would have no or a negative impact on OP across

the board. In short, the theoretical debate on whether SP actually “works” and thus contributes to OP is far from over. A meta-analysis is needed to inject evidence into this debate.

## **Moderators in the Strategic Planning–Organizational Performance Relationship**

Scholarship on SP and OP has not always taken into account the contextual reality of public administration and management (Bryson, Berry, and Yang 2010; Poister, Pitts, and Edwards 2010). Although they provide arguments on why SP may or may not contribute to OP, the Harvard policy model, synoptic planning theory, and goal-setting theory do not necessarily elucidate the conditions under which SP may have a stronger or weaker impact on OP. Thus, in this article, three specific conditions (and five moderators) that could influence the impact that SP has on OP are assessed. The first condition includes two moderators, both of which are concerned with the conceptualization and subsequent operationalization of SP and OP. In the second condition, the context in which SP is practiced is likely to influence its effectiveness. Thus, we examine the practice of SP in public and private organizations and in U.S. and non-U.S. settings. The third condition explores the research design implemented in the articles and examines whether the statistical models included single or multiple data sources. These moderators help assess the contextual reality of public administration and management, and thus offer more middle-range theorizing on SP (Abner, Kim, and Perry 2017).

### **Formal, Participatory, and Comprehensive Strategic Planning**

The aforementioned description of SP centers on the formality of the SP process. Formality is concerned with the extent to which organizations follow a systematic approach to strategy formulation, conduct internal and external analyses, define goals, and formulate plans (e.g., George, Desmidt, and De Moyer 2016; Poister, Pasha, and Edwards 2013). However, there is more to SP than its formality, and research has typically included two other aspects of the SP process: the degree of participation during SP and the comprehensiveness of the SP process.

Integrative stakeholder participation theory argues that stakeholder participation during the process of decision making generates beneficial outcomes (Hendrick 2003). This approach has been proposed by scholars of both public and private organizations (e.g., Elbanna 2008; Poister and Streib 2005). Applied to SP, integrative stakeholder participation is expected to be more beneficial to SP when a variety of stakeholders participate in it as opposed to only the top policy makers and managers of the organizations involved. The comprehensiveness of SP is an indication of an organization's strategic reasoning ability, and it has been identified as an important characteristic of SP (e.g., Hendrick 2003; Papke-Shields and Boyer-Wright 2017). It suggests that SP includes an analysis of many possible options and alternatives before coming to an informed decision. Such a comprehensive nature implies that SP is a process of reflection and careful consideration in which multiple options are generated and contemplated before a final course is selected. This helps enhance SP's impact on OP. Therefore, we investigate whether there are differences in the impact of formal SP, participatory SP, and comprehensive SP on OP.



## **Dimensions of Organizational Performance**

Recent studies of OP have stressed that OP is not a unidimensional construct but includes many different dimensions (Andersen, Boesen, and Pedersen 2016; Hubbard 2009; Walker Boyne, and Brewer 2010). Dimensions constitute more “classical” concepts such as efficiency, effectiveness, and financial performance, as well as more “governance”-related concepts such as societal outcomes and responsiveness to clients. Importantly, scholars of OP have called for more insights into which OP dimensions are particularly impacted by management, organization, and environment variables (Fisk 2010; Walker and Andrews 2015). A question thus emerges as to whether SP is similarly effective across all OP dimensions. To answer this question, as well as the call for more multidimensionality in OP research, we assess whether SP’s impact on OP differs when OP is measured as efficiency, effectiveness, responsiveness, outcomes, or financial performance.

## **Public and Private Organizations**

The differences between public and private organizations have been long-standing in public management research and practice relevant to the SP–OP relationship. Several studies have investigated the differences between public and private organizations. Boyne (2002) found that public organizations are more bureaucratic and that managers within the public sector tend to be less committed to their organization. This could make it difficult for SP to “work” in public organizations because SP processes require a lot of commitment from the organization and its employees. This could also be hindered by an abundance of procedures and rules. Similarly, Buelens and Van den Broeck (2007) argued that public sector employees are less extrinsically motivated than their private sector counterparts, which could make it hard to encourage public sector employees to engage with SP using external stimuli. Alternatively, Mazzucato (2015) debunked many of the myths underlying stereotypical public and private sector differences, implying that the impact of SP on OP could be the same in both sectors. However, this issue has not been resolved. Thus, we include the public-private distinction as a moderator to bring some clarity to this salient and long-standing debate—indeed, a debate that has been influential in the adoption of SP in public organizations.

## **U.S. and Non-U.S. Contexts**

SP development has a strong U.S. footprint. The Harvard policy model was one of the first SP models to emerge, and it introduced SWOT analysis (Andrews 1980). Other models from U.S.-based scholars soon followed, with some specifically focused on the public and nonprofit sectors. Often-cited examples are the models of Cohen and Eimicke (1998), Montanari and Bracker (1986), and perhaps the most cited example, Bryson (2011). Similarly, SP public management scholarship has predominantly emanated from the United States, reflecting trends in the public sector (see the reviews of Bryson, Berry, and Yang 2010; George and Desmidt 2014; Poister, Pitts, and Edwards 2010). Obviously, this does not imply that there is no research from non-U.S. settings or that SP is not conducted beyond the United States. However, it does raise the question of whether SP models originating in the United States can still “work” in non-U.S. contexts. Indeed, context matters in public management studies (O’Toole and Meier 2015; Pollitt 2013), and organizations from the United States share different institutional contexts than those from, for instance, the European Union, where

more political control, stronger regulations, and dominant labor unions are present (Meier, Rutherford, and Avellaneda 2017). Hence, it is relevant to identify whether SP is similarly effective at enhancing OP in both U.S. and non-U.S. settings.

## **Common- and Multiple-Source Data**

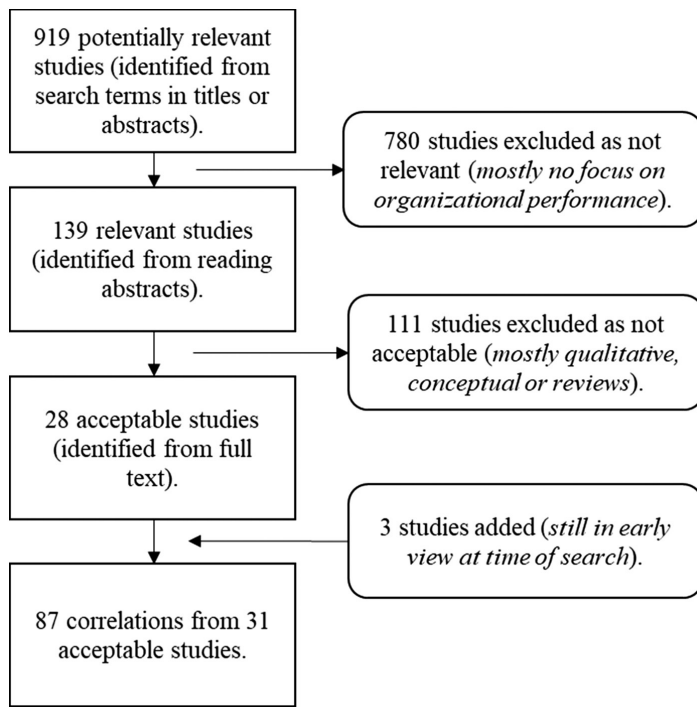
Much of the SP research has used single cross-sectional surveys to measure the independent and dependent variables (e.g., Elbanna 2008; George et al. 2018). However, some studies have included multiple-source data to measure OP (e.g., Jimenez 2013; Poister, Pasha, and Edwards 2013). Recent studies in public management (e.g., Jakobsen and Jensen 2015) and earlier work in psychology and management (e.g., Podsakoff et al. 2003) have indicated that studies using the same survey-based source to measure dependent and independent variables might suffer from common source bias, especially when OP is the dependent variable. Specifically, variables measured by the same survey have shared common method variance and when this variance is so high that correlations between the variables are inflated, common source bias emerges (George and Pandey 2017). To identify whether common source bias has also influenced research on SP and OP, we assess whether the SP–OP relationship differs when common- or multiple-source data are used.

## **Methods**

### **Data**

Data were collected following a systematic literature review. First, we defined the scope of our search—namely, SP as opposed to other variations of planning (e.g., urban planning, rational planning). Although SP and other planning concepts (such as rational planning) are often related, they do not necessarily measure the same construct. For instance, rational planning is a theoretical framework for strategy formulation, whereas SP is a concrete approach used to formulate strategy. Second, we did a title and abstract search using Web of Science on August 26, 2017. We focused on articles published in journals classified by the Social Sciences Citation Index because these journals are international in nature and use strict peer-review processes to enhance the quality of their articles (Walker and Andrews 2015). We included articles that mentioned “strategic planning” in the title or abstract. This resulted in 919 hits. Third, we analyzed the abstracts of these articles to identify whether the articles included some reference to OP. This resulted in 139 hits. Fourth, we read the articles to elucidate whether they focused on the relationship between SP and OP and provided quantitative empirical evidence. This resulted in 28 relevant hits. Finally, we analyzed the citations in the selected 28 articles using Google Scholar to identify whether any studies had been omitted. This resulted in an additional 3 articles. Figure 1 offers an overview of the systematic literature review. (A list of the studies can be found in appendix A in the Supporting Information online.)

Our meta-analysis synthesized the findings of 31 empirical articles, commensurate with other meta-analyses in our field (e.g., Gerrish 2015; Harari et al. 2017; Walker 2013). These articles included 87 correlations between SP and OP. We present an overview of the articles and their assigned codes for our moderators in appendix B in the Supporting Information. The mean sample of our articles was 278 organizations, with a minimum of 14 and a maximum of 1,815. On average, the articles had about three correlations between SP and OP, with the minimum being one and the maximum



**Figure 1** Systematic Literature Review Process

being nine. Most of the articles focused on formal SP (27), but participatory SP (7) and comprehensive SP (6) were also assessed. In relation to OP, 10 articles focused on effectiveness, 5 on efficiency, 4 on responsiveness, 3 on outcomes, 4 on multiple dimensions, and 15 on financial performance. Sixteen articles focused on private organizations, 10 on public organizations, and 5 included both. Fourteen articles were from the United States, 15 from a non-U.S. setting, and 2 from both. Finally, 24 articles used single-source data, and 9 used multiple-source data.

### Meta-Analytical Procedure

This study used a meta-analysis, or an “analysis of analyses,” defined as “the statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings” (Glass 1976, 3). Our meta-analysis relied on the guidelines proposed by Ringquist (2013) using the statistical software package Stata. Four steps were implemented.

**Identifying effect sizes.** The effect size for each relationship between SP and OP identified in an article was calculated. Correlation coefficients are popular and easily interpretable across the social and behavioral sciences. Thus, they are the preferred effect size for meta-analyses in public management and policy (Ringquist 2013). Most of our articles (71 percent) reported correlation tables, making it easier to include the correlation coefficients. For those articles that did not provide correlation tables, we calculated the correlation coefficient based on the *t*-statistic (*t*) and the degrees of freedom (df) using the following formula:

$$r = \sqrt{t^2 / (t^2 + df)}.$$

In turn, the *t*-statistic was calculated by dividing the unstandardized regression coefficient by its standard error. To maximize the number of correlations, we allowed studies to have multiple effect sizes,

a choice that had consequences for our meta-regression analysis (Ringquist 2013). However, as an overall robustness check (i.e., to account for studies clustering a large amount of correlations), we reran the meta-analysis using only one average correlation per study.

**Conducting the meta-analysis.** A population effect size across all correlations and studies was derived using a random-effects meta-analysis with Fisher’s *r*-to-*Z* transformation. The random-effects model was preferred over a fixed-effects model because we were using real-world data within a public management and policy context (Ringquist 2013). To generalize the study findings to a broader population (i.e., not only the studies incorporated into the meta-analysis), the unconditional inferences presented by random-effects models were required. Fisher’s *r*-to-*Z* transformation was used because it is considered a convention in meta-analysis (Ringquist 2013). In addition to calculating the population effect size, its significance, and its 95 percent confidence interval, we identified the heterogeneity of effect sizes using chi-squared to elucidate whether further meta-regression was valuable for identifying the sources of effect size heterogeneity.

**Conducting the meta-regression analysis.** Moderator analysis was conducted using random-effects meta-regression with clustered standard errors at the study level (Ringquist 2013). In the said model, the dependent variable consisted of the *Z*-transformed effect sizes, and the hypothesized moderators were added as independent variables. Our data were nested. Studies have typically included multiple correlations and we needed to account for this nested nature by using clustered standard errors at the study level (Ringquist 2013). The meta-regression reported regression coefficients for each hypothesized moderator and its significance, standard error, and 95 percent confidence interval, allowing us to identify the significant sources of variation in effect sizes overall.

**Identifying publication bias.** To detect potential issues of publication bias, we conducted both visual and statistical tests. Publication bias implies that more significant research findings are published than null results (Rosenthal 1979). Hence, a meta-analysis based on articles published in academic journals might overestimate population effects because it does not include unpublished articles. We followed the recommendations of Ringquist (2013) and presented a symmetric funnel plot as a visual test of publication bias and included the Egger test and Begg test to identify the significance of publication bias in our meta-analysis.

## Results

### Meta-Analysis

Table 1 presents the results of the random-effects meta-analysis using Fisher’s *r*-to-*Z* transformation. First, we performed the analysis for all 87 correlations. Second, we calculated an average effect size per study and reran the analysis for 31 correlations as an

**Table 1** Results of the Meta-Analysis

Correlations	Population Effect Size	95% CI	Chi-squared	I <sup>2</sup>	Tau <sup>2</sup>	z
87 (31 studies)	.229	[.186, .271]	1,020.60***	91.6%	.032	10.58***
31 (31 studies)	.255	[.177, .333]	342.94***	91.3%	.041	6.39***

\* *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001.

additional robustness check. In both cases, the population effect size was positive (0.229, 0.255) and significant ( $p < .001$ ). The strength of the significant and positive population effect size was categorized as small to moderate, although closer to moderate (0.30) than small (0.10) (Cohen 1992). These results suggest that SP had a significant, positive, and moderate impact on OP based on the analyzed empirical evidence. Based on the chi-squared values, there was also significant variation in effect sizes overall, implying that further meta-regression was validated to identify the sources of the said variation.

### Meta-Regression Analysis

Table 2 presents the results of the random-effects meta-regression analysis with clustered standard errors at the study level. The included moderators predicted about 71 percent of the variation in the effect sizes overall, and the model was statistically significant. The effect sizes did not significantly vary between formal SP and comprehensive SP. However, participatory SP did have, on average, a significantly lower effect size. This finding implied that formal SP had the strongest impact on OP and although comprehensive SP had a lesser impact, the difference was not significant. However, participatory SP did have a significantly weaker impact than formal SP. The analysis indicated that the effect sizes were strongest when OP was measured as organizational effectiveness. For all other dimensions the impact was weaker, but this difference was significant for only one dimension, namely organizational efficiency.

**Table 2** Results of the Meta-Regression Analysis

Moderators	Coefficient	Robust Standard Error	95% CI
Constant	.417**	.108	[.197, .637]
Strategic planning (reference = formality)			
Comprehensiveness	-.011	.045	[-.102, .080]
Participation	-.129*	.058	[-.247, -.010]
Organizational performance (reference = effectiveness)			
Efficiency	-.357**	.125	[-.612, -.102]
Outcomes	-.199	.121	[-.446, .047]
Responsiveness	-.061	.167	[-.402, .280]
Multiple	-.150	.097	[-.348, .049]
Financial performance	-.141	.102	[-.350, .068]
Sector (reference = private)			
Public sector	.068	.070	[-.076, .211]
Both	.159	.110	[-.066, .384]
Country (reference = U.S.)			
Non-U.S.	.027	.071	[-.117, .172]
Both	-.085	.067	[-.222, .052]
Data source (reference = common)			
Multiple source	-.164*	.063	[-.293, -.035]
Number of observations		87 correlations	
F-value		48.25***	
R <sup>2</sup>		.7127	
Root MSE		1.0523	

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Standard errors are clustered at the study level ( $N = 31$ ).

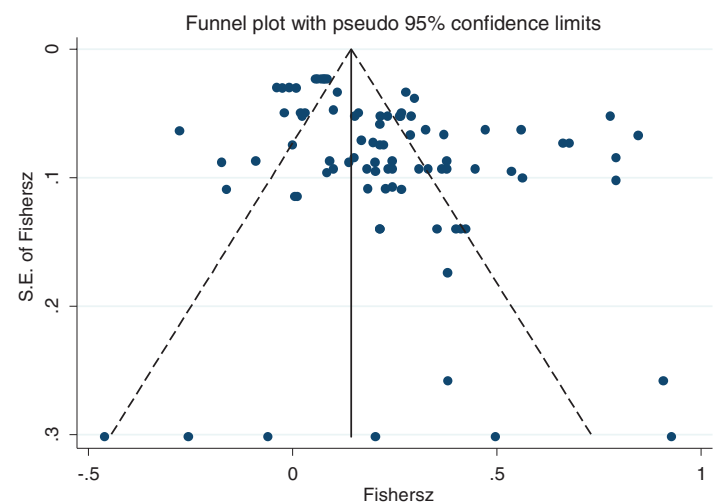
In relation to the contextual moderators, we found no statistically significant differences, that is, the effect sizes did not significantly differ between the public and private sectors or between the U.S. and non-U.S. contexts. Finally, there was evidence of issues with common source bias because studies that used multiple data sources, on average, reported significantly lower effect sizes. Importantly, when we looked at the coefficient of the constant (i.e., the average effect size when all dummies had a value of 0), we saw a value of 0.417, which could be classified as a moderate to strong effect size (Cohen 1992). This clearly emphasizes the particularly potent effect of SP when OP is measured as effectiveness, SP is measured as formal SP, and single-source data are used.

### Publication Bias

Figure 2 presents a funnel plot, a visual test for publication bias. The symmetry in this plot indicates no publication bias. Although we did find some symmetry overall, it was clear that a large number of correlations fell outside the funnel plot confidence limits. This could have been an indication of publication bias. To statistically test this bias, we conducted the Begg test and the Egger test. The Begg test resulted in a  $z$ -value of 1.88 (continuity corrected), which was insignificant at the  $p < .05$  level. This test indicated the absence of publication bias in our meta-analysis. The Egger test resulted in a bias coefficient of 2.651, which was significant at the  $p < .001$  level. This test indicated significant issues with publication bias in our meta-analysis. Thus, these two tests seemingly contradicted each other, leading us to conclude that publication bias could not be neglected when interpreting the impact of our findings on public administration theory, research, and practice. However, it is noteworthy that the impact of publication bias has been shown to be quite small in other fields (Rosenthal 1991) and publication bias should therefore not be assumed to always skew meta-analytical results.

### Discussion: Implications for Theory, Research, and Practice

This meta-analysis synthesized more than 20 years of empirical research on SP to identify whether SP has contributed to OP. Although SP has remained extremely popular, so have its critiques. This article injects evidence into the debate between the proponents and opponents of SP and offers insights into the conditions under



**Figure 2** Funnel Plot of Effect Sizes

which SP has been particularly effective. At the heart of this article is the observation that SP has remained extremely popular in public organizations, in part because it has been assumed that SP has “worked” in the private sector and thus can also benefit the public sector. Our study lends credence to this assumption, finding a positive, moderate, and significant impact on the SP–OP relationship. Our meta-analysis also reveals that the relationship holds across the public and private sectors and across geographic contexts. Further, we show that SP’s impact is particularly strong when SP is measured as formal SP, OP is measured as effectiveness, and single-source data are used. These findings have implications for public administration theory, research, and practice.

### ***Implications for Theory and Research***

In our theoretical section, we juxtaposed the perspectives of the Harvard policy model (Andrews 1980), synoptic planning theory (Dror 1983), and goal-setting theory (Locke and Latham 2002) on SP with the critiques built from logical incrementalism (Quinn 1978) and complexity theory (Bovaird 2008). Our meta-analysis supports the theoretical proposition (in accord with the Harvard policy model, synoptic planning theory, and goal-setting theory) that SP contributes to OP. SP can indeed offer a systematic, analytic, and deliberate approach to strategy formulation that also provides clarity within and beyond the organization on what its priorities are and how they should be addressed, as well as helps an organization find a fit with its environment. We add to a growing literature base that identifies beneficial outcomes related to organization-environment fit, goal setting, and synoptic planning across sectors (e.g., Elbanna 2006; Vinzant and Vinzant 1996; Walker and Andrews 2015).

The critiques of SP based on logical incrementalism and complexity theory perspectives, which suggest that SP is ineffective or harmful to OP, seem to lack empirical grounding. In other words, the argument that SP causes organizations to become inflexible and nonresponsive to emerging issues (thereby decreasing OP) or only works in routine, simple organizations is unsupported. However, it should be noted that while SP seems to be effective across different types of organizations we did not uncover studies focusing on SP in complex systems clustering multiple organizations (e.g., cross-sector collaborations, community initiatives, etc.). Our findings suggest the need for more middle-range theorizing on SP in contemporary public and private organizations, raising the question, When does SP work “best”?

First, SP is itself a multidimensional construct, and not every dimension of SP may contribute to OP in the same way. We found that comprehensive SP was almost as important as formal SP (only a small and insignificant difference in effect size), implying that careful deliberation and consideration of many available options are crucial during SP. This finding adds to resource-based theories on the notion of strategic reasoning ability—that is, having human resources with the ability to generate, evaluate, and select relevant strategies for the organization (Bryson, Ackermann, and Eden 2007). In turn, this suggests not only that SP should be looked at from the perspectives of the Harvard policy model, synoptic planning theory, and goal-setting theory, but also that we should ask who is actually conducting SP in organizations. Do these people have the necessary ability to generate and evaluate different strategic

options? Indeed, the SP process could adopt all aspects of the Harvard policy model, synoptic planning theory, and goal-setting theory but not include the required human resources to become comprehensive. Theorizing about SP’s impact on OP thus requires an assessment of both the process of SP and the human resources actually involved in SP (George 2018).

Another dimension of SP—namely, participatory SP—proved to be significantly less important to enhancing OP than was anticipated by integrative stakeholder participation theory (Hendrick 2003). Research has found that including a variety of stakeholders in SP makes the process more complex (Hendrick 2003). However, in the current New Public Governance era, it is hard to imagine a nonparticipatory SP process (Osborne 2006). We identify a need to reframe theories on integrative stakeholder participation perhaps away from the direct impacts of participatory SP on OP toward moderating effects. Previous studies have shown that participation in SP or strategic decision making acts as a moderator between decision-making processes and outcomes (e.g., De Dreu and West 2001; Elbanna 2008). One could also theorize about “how” stakeholders are involved during SP. This is important because there are several types of stakeholders and a variety of tools to assess stakeholders’ involvement. This means that it might not be enough to just “allow” everyone to participate during SP without carefully considering how they are involved (Bryson 2004).

Second, moving on to the dependent variable of this study, we look at OP. The Harvard policy model, synoptic planning theory, and goal-setting theory have typically proposed the positive impact of SP on OP. However, this has been done without distinguishing between the different dimensions of OP. We provide evidence that SP is most potent in predicting organizational effectiveness and least valuable in enhancing efficiency. To SP scholars, this finding might not be surprising. Many have argued that although SP is not necessarily easy to do and requires time and resources (e.g., Bryson and Roering 1988; George et al. 2018), it is a managerial approach focused on enhancing an organization’s capacity to actually achieve defined strategies, goals, and plans. This implies that effectiveness might be the most important performance driver to target through SP. Future research should explicitly take into account that OP is also a multidimensional concept (Walker, Boyne, and Brewer 2010), and different hypotheses are required to better understand the effect of SP on OP’s different dimensions. The findings of the meta-regression presented in this article show the following order for the impact of SP on OP dimensions (moving from strongest to weakest impact): effectiveness, responsiveness, financial performance, outcomes, and efficiency. These findings could be used to assist in the development of more fine-grained theorization on the SP–OP relationship. Additionally, other OP dimensions have been identified within the public administration literature but were not part of the analyzed studies in our meta-analysis. For instance, governance, democratic, and transparency outcomes have all been argued to be important dimensions of public service performance (Walker, Boyne, and Brewer 2010), and we encourage future studies focusing on identifying whether and how SP is similarly useful for these performance dimensions.

Third, we assessed whether the distinctions between public sector and private sector and U.S. and non-U.S. settings mattered. These



differences did not matter much in the SP–OP relationship. This seemingly points toward SP being a “generic” management practice that can help all organizations perform better. However, we note that our data allowed us to assess only public, private, U.S., and non-U.S. differences. We encourage future theorizing on the SP–OP relationship to adopt a contingency perspective and include a broader range of organizational, environmental, and institutional contingencies. All of these contingencies could strengthen or weaken the SP–OP relationship. For instance, bigger organizations might have more resources to invest in formal and comprehensive SP processes, making it easier to achieve performance gains. Having a complex environment with many stakeholders might make it harder for organizations to analyze their environment and define agreed-upon priorities during SP. Finally, SP might be adopted by organizations for legitimacy purposes resulting from coercive, normative, or mimetic pressures, which could also hamper its effectiveness.

More scholarship on the potential moderating effects of organizational, environmental, and institutional contingencies could move the SP field forward and help elucidate when SP works best. One particular contingency stands out especially when looking at complexity theory’s criticism of SP. Namely, does SP work equally well in complex systems in which multiple organizations are collaboratively trying to achieve a common goal (e.g., public-private partnership, community initiatives, etc.)? We follow earlier calls that encourage more theorizing about how SP might be (in)effective in such specific interorganizational contexts and why (Bryson, Edwards, and Van Slyke 2018).

Apart from more middle-range theorizing, we see additional research avenues based on the analyzed studies. We would encourage future research to investigate the characteristics of SP beyond its formality and participatory or comprehensive nature. For instance, some studies have looked at the flexibility of the SP process, especially how easily strategic plans can change (e.g., Dibrell, Craig, and Neubaum 2014). However, is the process of developing a strategic plan an ongoing and evolving process, as opposed to a carefully planned, one-off event? Another characteristic worthy of further investigation is the role of intuition and creativity during SP. Although SP has often been operationalized as a formal process, recent evidence has shown that creative people flourish during SP and become change champions for the strategic plan (George et al. 2018). Indeed, having creative people involved in SP could also help make it more comprehensive because creativity is needed to produce many strategic options. Critically, it is important to note that SP is not any one thing. It is very much a practice and any one operationalization of SP could be too limited. It is a multidimensional concept in which much variation can be observed and expected to influence OP (Bryson, Edwards, and Van Slyke 2018; Wolf and Floyd 2017).

We also found that SP research often used common surveys as data sources to measure the dependent and independent variables, and that the articles that included multiple sources of data in their research design, on average, reported less strong effect sizes. This could indicate issues of common source bias (George and Pandey 2017; Jakobsen and Jensen 2015). Future designs should implement initiatives to avoid said bias and drive toward causal explanations.

For instance, many reforms have taken place throughout the public sector that have implemented elements of SP. Difference-in-differences analysis in a natural experiment setting could be used to compare public organizations before and after such reforms. Multiple-source data, such as government databases or evaluations from citizens and other external parties, could also be used to measure OP and examine the SP–OP relationship over time. To make research on the SP–OP relationship more robust, using experimental data and/or multiple-source data is critical. Such studies can then provide input for additional meta-analyses aimed at inferring causation.

### ***Implications for Practice***

Worldwide, SP has often been engrained in public sector reforms, and our meta-analysis lends credence to these reforms. Despite the often very vocal and potent criticisms toward SP, based on the current research evidence, it appears that SP “works” across sectors and countries. It should not be marginalized, but rather should be included in the standard managerial approaches of contemporary organizations. Although prejudice toward SP remains, it seemingly lacks empirical validity. The evidence points toward significant performance benefits related to SP’s effectiveness. We thus encourage policy makers and managers everywhere to engage with SP and/or ensure their SP processes are formal and comprehensive to enhance the performance of their organizations. However, we would also encourage practitioners to keep in mind “how” they implement SP.

Our findings indicate that simply having a plan is not enough. SP should include an informed process during which the internal and external environment is analyzed, clear strategies and goals are defined based on this analysis, and different courses of action are generated and carefully considered before making final decisions. Further, practitioners should take into account that implementing SP in the hope of reaching efficiency gains is not necessarily a good idea. Rather, SP can be particularly helpful to making organizations more effective, meaning that strategies are successfully implemented and goals are achieved. This also implies that SP requires resources from organizations, both human and financial. Practitioners should not expect relevant strategic plans to emerge from ill-funded SP processes.

We also encourage practitioners to think about who should be involved in SP and how. The SP team should be able to carefully analyze the internal and external environment of the organization, have the necessary ability to generate many strategic options, and be able to select the most relevant ones. Leaving SP only to the financial department or urban planning department is an unlikely pathway to success. SP should be a cross-organizational effort involving practitioners with knowledge of the organization and its purposes, employees, finances and, overall mandate. Nevertheless, involving all stakeholders in the same manner is also unlikely to result in success. Using stakeholder management techniques can help ensure that during SP stakeholders are involved in a feasible and relevant manner.

### ***Conclusion***

Mintzberg (1994) declared the fall of SP a quarter of a century ago. Yet SP is clearly very much alive in contemporary organizations,



particularly in the public sector. Our meta-analysis indicates why it is still alive: it has a significant, moderate, and positive impact on OP. Clearly, these findings suggest that opposition to SP is not supported by empirical evidence, and this gives credence to worldwide public sector reforms that center on SP. Nonetheless, several avenues for future research remain. There is a need for more theoretical depth and studies that simultaneously investigate different OP dimensions using multiple data sources with stakeholder involvement as a moderator. Therefore, we need to encourage future meta-analytic efforts using a larger body of studies, each of which takes a more nuanced understanding of SP. In this article, we elucidated how SP is a successful managerial approach in both the public and private sector and proposed what we believe to be fruitful research avenues. We hope to encourage scholars to engage with this important topic.

## Acknowledgments

The authors are indebted to the late Evan Ringquist, whose book on meta-analysis proved extremely helpful. The authors also want to thank the public administration group at Erasmus University Rotterdam—in particular, Joop Koppenjan, Erik-Hans Klijn, and Bram Steijn—for their helpful insights on an earlier version of this article.

## Funding

This work was supported by a National Research Foundation of Korea grant from the Korean government (NRF-2017S1A3A2067636).

## Note

1. Given that one of our moderators is public-private differences, this debate is not confined to public organizations and in the business and management literature the concept of organizational performance is similarly contested (Fisk 2010; Hubbard 2009).

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## Supporting Information

A supplementary appendix may be found in the online version of this article at <http://onlinelibrary.wiley.com/doi/10.1111/puar.13104/full>.