

Leading open strategizing practices for effective strategy implementation

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Abstract

Purpose – Implementing a new organizational strategy effectively nowadays is said to require open strategizing practices. The purpose of this paper is to examine the adoption of three intertwined open strategizing practices in conjunction with a transformational leadership style towards effective strategy implementation.

Design/methodology/approach – The study was conducted within 37 geographically dispersed locations of a Dutch governmental organization. The top managers and senior managers were surveyed at two points in time ($n T1 = 548$; $n T2 = 414$) and group interviewed at $T2$. Exploratory factor and linear regression analyses were performed. The qualitative data pertaining to the specific way in which leaders can impact the relationship between open strategizing practices and strategy implementation was analyzed using the Gioia methodology.

Findings – As hypothesized, transformational leadership moderates the positive relationship between open strategizing practices and effective strategy implementation. This moderating effect was corroborated through the interview data in which the managers stressed the need for “intrinsically motivated” and “empowering” leaders to effectively support the adoption of their own locally-developed location strategy, as part of the overall strategy.

Research limitations/implications – Despite the timely focus on the three intertwined open strategizing practices, the findings are only based on the perceptions of the various top and senior managers employed by one Western public sector organization.

Practical implications – Top and senior managers who need to improve their organization’s strategy implementation can apply the here tested three open strategizing practices. They should also be aware of the key role of transformational leadership.

Originality/value – The authors contribute to the “open” strategy-as-practice domain by showing how top and senior managers’ transformational leadership style supports the beneficial effects of adopting the three practices.

Keywords Open strategy practices adoption, Strategy implementation, Transformational leadership, Field study, Mixed methods

Paper type Research paper

Introduction

Many organizations struggle with strategy implementation, prompting strategy scholars to emphasize a dynamic approach rather than merely focusing on the imposed plans and structure (Weiser *et al.*, 2020). One way to promote more adaptive strategy implementation is through “open strategy” (Appleyard and Chesbrough, 2017), which is built upon the domains of strategic planning and strategic management (Birkinshaw, 2017; Whittington *et al.*, 2011). Open strategy is defined as a “dynamic bundle of practices that affords internal and external

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actors greater strategic transparency and/or inclusion” (Hautz *et al.*, 2017, pp. 298–299). An open strategy approach may facilitate the required strategic flexibility (Jarzabkowski, 2004; Andersen *et al.*, 2019) through its four core principles: transparency, inclusion, participation, and IT-enablement (Whittington *et al.*, 2011; Seidl *et al.*, 2019).

Sunner and Ates (2019) defined the four principles as follows. Transparency is the accessibility, visibility, and distribution of relevant information to both internal and external parties during the strategizing process. Transparency is important for the perceived quality of information (Adobor, 2020). Inclusiveness concerns searching external stakeholders’ opinions through their active engagement and involvement. Welcoming diverse views sharpens the strategic analysis and leads to co-production of the strategy. Participation is defined as people’s actual influence on the decision making to generate more robust assumptions and decisions. Participation and inclusion are independent dimensions of public engagement: Inclusion creates a community involved in defining and addressing various issues, whereas participation emphasizes broad input on the content of programs and policies (Quick and Feldman, 2011; Mack and Szulanski, 2017). IT-enablement is the use of information technology, such as open applications, social media, and associated platforms, to facilitate the above mentioned transparency, inclusiveness, and participation. Although IT-enablement was not part of the original tenets of Open Strategizing, it was introduced by Tavakoli *et al.* (2015a, b) as distinguishing open strategizing from other, more participatory approaches to management. The use of different (social) media allows (instant) connections to a much broader group of stakeholders than before.

Open strategy requires constant “strategizing”, which constitutes “the flow of actions and interactions by multiple actors and the practices that they draw upon as they enact an organization’s strategic objectives” (Weiser *et al.*, 2020; Jarzabkowski *et al.*, 2019, p. 854). To this end, participative practices, such as one-page visual strategy maps or Balanced Scorecard, EFQM, Hoshin Kanri etc., and the accompanying Plan-Do-Check-Act type management dialogues, have gained popularity (Balbastre-Benavent, 2011; Bell *et al.*, 2013; Hoque, 2014; Tortorella *et al.*, 2018). These dialogues tend to be supported by up-to-date performance “dashboards”, which ensure the monitoring of goal achievement and evidence-based actions for improvement (Doeleman *et al.*, 2012b; Tezel *et al.*, 2016). To realize the strategy, this combination of practices has to create congruence among the choices and actions across the organizational levels (Floyd and Wooldridge, 1992, 1997; Salih and Doll, 2013).

Despite the merits of participative and adaptive open strategizing practices, many organizations are still struggling to adopt them effectively (Sunner and Ates, 2019). Top-management support is a known key condition, but few studies have examined which top leadership style can effectively induce such practices (Seidl *et al.*, 2019) or strategy implementation (Ateş *et al.*, 2018). Achieving effective strategy implementation requires both leaders *and* employees to demonstrate pro-active as well as re-active abilities (Brozovic, 2018). Yet, to date, their specific behaviors and practices for effective strategy implementation have hardly been empirically explored (Azhar, 2012). Recently, Tavakoli *et al.* (2017) advocated further studies of open strategizing by combining extant managerial practices from various academic domains. In line with Weiser *et al.* (2020, p. 969), we examine how the adoption of three practices contribute to effective strategy implementation, i.e. “the continuous interplay of conceptualizing and enacting strategies at multiple hierarchical levels and in multiple organizational units simultaneously”. Clearly there is a need to address the role of actors’ behaviors in achieving strategy implementation and the required organizational flexibility (Azhar, 2012). Leaders who enable effective (strategic) organizational change by defining the need for change, creating and expressing a new vision, and mobilizing employee commitment to this vision, have been suggested to have a transformational behavioral style (e.g. Gathungu *et al.*, 2015).

To know more about the role of internal enabling factors, such as transformational leadership, to achieve effective strategy implementation (Abernethy *et al.*, 2010; O'Reilly, 2010; Vaara and Whittington, 2012), our mixed-methods, intervention-type study answers the question: *Does top and senior managers' transformational leadership style moderate the relation between adopting open strategizing practices and effective strategy implementation?* In terms of the open strategizing practices, we focused on a combination of a co-creation of one-page visual strategy maps and frequent management dialogues that are supported by synchronized IT-enabled performance data visualizations. We test the hypotheses that are delineated below; the qualitative data analysis corroborates and deepens the quantitatively obtained results.

Hypothesis development

Open strategizing practices for effective strategy implementation

Open strategizing is a multifaceted and fast-developing phenomenon, consisting of different practices (Seidl *et al.*, 2019). Vaara and Whittington (2012) argued that open strategizing practices significantly affect both the process and the outcome of resulting strategies. Most studies have focused on open strategizing practices related to formulating a strategy and making decisions about strategic direction, rather than executing this strategy (Vaara and Whittington, 2012). There is thus potential for new insights on how open strategizing influences strategy implementation. Here strategy implementation is defined as a “dynamic, iterative, and complex process” that is comprised of various “activities by managers and employees to turn strategic plans into reality in order to achieve strategic objectives” (Yang *et al.*, 2010, p. 165). These views are in line with Weiser *et al.* (2020) who recently presented a more adaptive conceptualization of strategy implementation. They called for studies that examine the ongoing interaction between conceptualizing, enacting, and coordinating strategizing practices that concur at multiple hierarchical levels and different departments. Weiser *et al.* (2020, pp. 973–974) defined conceptualizing as all “activities involved in generating and continuously re-evaluating an organization's strategic direction”. Enacting was described by them as the “actions of multiple diverse actors and their interactions in making sense of and adjusting given strategy to their own contexts.” Finally, they defined coordinating as “actions aimed at orchestrating strategy implementation (. . .) to achieve collective action.”

These activities proposed by Weiser *et al.* (2020) can also be found in Ten Have *et al.*'s (2015) four elements of effective strategy implementation for strategic goal-oriented change (see, also, Hardjono *et al.*, 1996): direction, feedback, consistency and coherence. *Direction* encompasses clarifying an organization's shared vision and its strategic choices to create more focus within the organization (Kemp and Dwyer, 2003). This element maps on Weiser *et al.*'s (2020) conceptualizing dimension. *Feedback* entails frequent learning about the organizational strategic progress at all hierarchical levels. Given that good enactment involves learning and feedback among different actors, this element matches Weiser *et al.*'s (2020) enacting dimension. *Consistency* refers to the translation of the vision and strategy into concrete objectives at various managerial levels (Kober *et al.*, 2007), which enables organizational members to understand how they can contribute to the greater whole, while *coherence* concerns the horizontal alignment of the processes among all departments and individuals. Both consistency and coherence pertain to Weiser *et al.*'s (2020) coordinating dimension. As will be argued below, these four elements of strategy implementation are expected to be achieved through open strategizing practices.

Practices that enable participation of various stakeholders in the strategizing process are considered open strategizing practices (Dobusch *et al.*, 2019). This involves planning, communicating, and monitoring strategy execution (Dobusch *et al.*, 2019). Anthony and Govindarajan (2003) distinguished three matching clusters of dynamic practices that enable

effective strategy implementation in the open strategy paradigm: (1) planning, resource allocation, and the managing of activities; (2) communication and interactive monitoring of the goals and objectives; and (3) IT-supported evaluation and performance information to take corrective or preventive actions. Following these three clusters, three known examples of open strategizing practices are:

- (1) Creating a *one-page visual strategy map* in a participative way with both the managers who are involved in realizing this mission, vision, and strategy and the representatives of other organizational stakeholders (Adobor, 2020; Paroutis *et al.*, 2015). This one-page visual strategy map, which follows the EFQM Excellence Model (Doeleman *et al.*, 2012a, 2014; Gómez *et al.*, 2017; Para-González *et al.*, 2021), can be co-created by various stakeholders in one or more sessions and then implemented by themselves later. Such visually attractive one-pagers may enable managers to adopt an integral perspective and think about how the desired outcomes contribute to strategic clarity (Collis, 2016; Irwin, 2002; Joleyemi, 2009; Lumpkin and Dess, 1995; Paroutis *et al.*, 2015), and facilitate the transparency and credibility of the entire strategizing process (Gegenhuber and Dosch, 2017). Moreover, involving employees in the strategizing process may increase their buy-in and commitment (Birkinshaw, 2017) and the co-development of performance measures was shown to improve job performance (Groen *et al.*, 2017).
- (2) *Frequent management dialogues* are the key for strategy development and implementation at the work floor (Simons, 1995). These weekly or monthly dialogues among different managerial levels are used for monitoring the goals and performance of the past period. The quality of management dialogues can influence managerial strategic performance (Rajala *et al.*, 2019; Burgelman *et al.*, 2018). Rajala *et al.* (2019) elaborated on specific issues that can be addressed by frequent boundary-spanning strategic performance management dialogues, including: lack of motivation, lack of shared mindsets and language between people working in different units, and inadequate organizational culture and structures.

The agendas for the meetings should be initiated bottom-up by those who are responsible for realizing the strategic goals on the one-page visual strategy map (Jagoda *et al.*, 2013; Gassner *et al.*, 2020; Groen *et al.*, 2017). Typically, such meetings cover four topics: (1) new developments that may impact the strategic goals; (2) achievements; (3) key challenges; and (4) follow-up actions. Frederickson and Branigan (2005) reported that putting positive experiences on the agenda stimulates employee's engagement, commitment, and future actions.

- (3) Easy online access to an overview of the progress regarding achieving the strategic goals is the third open strategizing practice. Such *IT-enabled performance data visualizations*, focused on the one-page visual strategy map goals, have been associated with organizational performance (Nitzl *et al.*, 2018; Tavakoli *et al.*, 2015a, b; Walldius, 2018; Wu *et al.*, 2015). Strategy implementation will be stimulated whenever such IT enabled performance data visualizations are easily accessible, visually attractive, and in line with the content of the one-page visual strategy map (Bateman *et al.*, 2016; Morton *et al.* 2019, 2020).

Altogether, these three practices adhere to the various tenets of open strategy: Their IT-enabled dialogue orientation supports a transparent, inclusive, and participative strategy-making and -execution process. Indeed, Anthony and Govindarajan (2003) proposed that a combination of such practices works synergistically, which could enable effective strategy implementation (Simons, 1995; Widener, 2007). Thus, we hypothesize (see Figure 1):

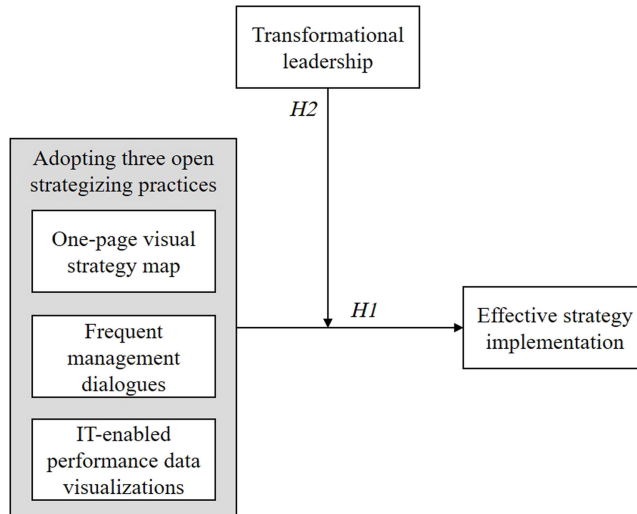


Figure 1.
Hypothetical
framework

H1. The adoption of three open strategizing practices (one-page visual strategy map, periodical management dialogues, and IT-enabled performance data visualizations) has a positive effect on strategy implementation.

Transformational leadership as a moderator

Together with organizational structure (Weiser *et al.*, 2020), size (Kearney *et al.*, 2019), institutionalized practices (Roper and Hodari, 2015), and power distance (Youssef and Christodoulou, 2017), a key factor for achieving strategy implementation is the leadership style (O'Reilly, 2010). Leaders in public organizations are essential actors for achieving performance improvement and strategic change (Sun and Henderson, 2017). Transformational leadership has particularly been positively related to organizational performance, change, and strategy implementation (e.g. Ateş *et al.*, 2018; Groysberg and Slind, 2012; Judge and Piccolo, 2004). Peng *et al.* (2020a), for instance, found that transformational leadership has a positive relationship with employees' commitment, openness, as well as readiness for change, and is negatively related to resistance to change and cynicism. In a follow-up study, Peng *et al.* (2020b) reported positive relationships between transformational leadership and affective organizational commitment. Furthermore, transformational leadership has also been found to contribute to strategy progress monitoring practices, especially in terms of enabling dialogues about past and desired performance (Abernethy *et al.*, 2010; Doeleman *et al.*, 2012b; Hartmann *et al.*, 2010).

Transformational leadership finds its conceptual foundation in follower transformation (Siangchokyooy *et al.*, 2020). Avolio and Bass (2002) described transformational leadership's four subdimensions: intellectual stimulation, idealized influence, individualized consideration, and inspirational motivation. A transformational leader may promote new ideas and motivate people to critically evaluate their own work and how they contribute to the strategy implementation (i.e., intellectual stimulation). A transformational leader can contribute to co-creating a new strategy and functioning as a role model for the followers (i.e., idealized influence). Also, through individualized consideration, a transformational leader can engage employees in the strategizing process: by attending to their specific needs and concerns, including giving valuable feedback (Avolio and Bass, 2002). Finally, by

communicating the strategy in a compelling way, a transformational leader can achieve inspirational motivation for the strategy among followers (Siangchokyoo *et al.*, 2020).

These transformational leadership subdimensions also contribute to the required performance dialogue which ideally incorporates feedback and information about the recent contributions to the current strategy and priorities (Heracleous *et al.*, 2018). In such situations, managers must be skilled in giving feedback, enhancing participation, and creating a learning climate (Aguinis and Pierce, 2008). The latter has been observed among transformational leaders (Afsar and Umrani, 2019; Sun *et al.*, 2014).

A few studies established a positive moderating effect of transformational leadership in relation to the effective deployment of organizing practices (Engelen *et al.*, 2015; Jansen *et al.*, 2008; Vasilaki *et al.*, 2016; Wang and Walumbwa, 2007). For instance, Vasilaki *et al.* (2016) showed that transformational leadership moderates the relationship between the implementation of HRM practices during mergers and acquisitions and employee identification with the new organization. Vasilaki *et al.* (2016) especially called for a better understanding of the role of the transformational leadership style in such dynamics. Engelen *et al.* (2015) found that the four transformational behaviors positively affect the relationship between entrepreneurial orientation and organizational performance. Further, Wang and Walumbwa (2007) reported that transformational leadership moderated the relationships between work flexibility benefits and both organizational commitment and work withdrawal, and between childcare benefits and work withdrawal. Accordingly, we hypothesize:

H2. Transformational leadership moderates the relationship between the adoption of open strategizing practices and effective strategy implementation.

The three open strategizing practices, transformational leadership, and strategy implementation are the key elements of the quantitative part of our study (see, Figure 1). Additional qualitative data was collected to further scrutinize the obvious yet changed role of leadership in enabling strategy implementation through the new phenomenon of open strategizing practices.

Methods

Research design and intervention

While the open strategy domain only emerged recently, the fields of effective strategy implementation and transformational leadership go back many decades and enabled us to develop hypotheses. In line with the Edmondson and McManus' (2007) intermediate archetype, a mixed-methods interventionist research design was deemed fitting (Fraser and Galinsky, 2010).

During a period of two years, three open strategizing practices were implemented at all management levels of each location of a large Dutch public sector organization (the so-called "A3 approach"). Such organizations often face difficulties in adopting new strategies, given their political context and looming "issues of equity, transparency and probity" (Radnor and Johnston, 2013, p. 911). These strategic local practices entail: (1) Co-creation of one-page visual strategy maps [1] (following the EFQM Excellence model); (2) periodical management dialogues aimed at discussing location-specific performance (following the Plan-Do-Check-Act cycle); and (3) frequent, synchronized IT-enabled performance-data visualizations [2] (that provide feedback on the planned actions and results), to facilitate the periodical dialogues. A digital reporting tool presented the performance-data visualizations in line with the content of the one-page visual strategy maps. Survey-based variables were measured just before and two years after the intervention, at *T1* and *T2*. To gain a deeper understanding, we conducted semi-structured group interviews with the respondents immediately after administering the *T2* survey. During these on-site interviews, the degree of implementation of the three open

strategizing practices was also measured. The outcomes were presented during another set of site visits, which often inspired local improvement plans to increase their local strategy implementation effectiveness.

The research team consisted of a principal investigator who supervised the entire process and executed the quantitative data analyses, five management consultants for data collection, and two research assistants (MSc students) for data analysis and reporting. During the qualitative data analysis phase, the team was supplemented by a group of five respondents from the participating organization. All thirteen research team members participated in the qualitative coding process.

Study context and sample description

The effects of the open-strategy intervention were investigated in the geographically dispersed Dutch national prison agency with about 19,000 employees. At *T1*, the research was conducted among the 681 top and senior managers within all its 44 locations. Two years later, at *T2*, 425 top and senior managers from 37 of these locations were invited to participate in the second survey. The other seven locations were excluded because they would be closed soon which could have biased the results. Following the decreased crime rates in the Netherlands [3] in the period 1999–2020, many locations had to deal with high workloads. While these circumstances lowered the motivation of the employees to engage in new work practices, it also increased the urgency to re-focus their strategic course. Also, the notion arose in the public sector that involving people earlier in the process will increase employees' level of buy-in and commitment (Birkinshaw, 2017).

The principal investigator visited all locations multiple times and achieved a survey response rate of 83%. During the site visits, the principal investigator participated in a local management meeting after which the participants were asked to fill out the survey. To ensure data representativeness per location, we only included the survey data of the locations with a minimum individual response rate of 70%. After removing respondents with too many missing data, the sample sizes were: $n = 548$ at *T1* and $n = 414$ at *T2*. Table 1 describes the respondents' characteristics at *T2*; the *T1* sample had similar characteristics. On checking the data, we found no signs of non-response bias or a possible order effect. The participating locations had nearly identical organizational structures and internal work processes. No deviations were found in terms of the spread of functions of the respondents at each location.

Measures

A pilot test of the questionnaire among a representative sample of top and senior managers of seven locations did not lead to any adjustments.

Strategy implementation was measured at both time points using a 16-item composite measure that captures the four previously-mentioned elements of effective strategy implementation for purposive change: direction, consistency, coherence and feedback at each location (Ten Have *et al.*, 2003). We used Patterson *et al.*'s (2005) validated 5-item "clarity of organizational goals" scale to measure "direction" and added two items related to the clarity of the management values. This scale assesses how familiar the respondents are with the organizational goals and whether these goals are clear to them. Following Hertenstein and Platt (2000), two items were used to measure "consistency". The scales for "coherence" and "feedback" were expressly developed for this study (four and three items, respectively), based on Ten Have and Huiskamp (2003), also with a 4-point Likert answering scale (strongly disagree – strongly agree).

Transformational leadership style was measured at *T2* using 15 items from the Dutch MLQ-8y validated by Den Hartog *et al.* (1999). The respondents scored their own leader's transformational leadership on a 4-point Likert scale (strongly disagree – strongly agree).

Characteristics	Category	No. of respondents at T2
Age	20–29 years	8
	30–39 years	62
	40–49 years	193
	50–59 years	147
	>59 years	2
	Unknown	2
Organizational tenure	<1 years	20
	1–4 years	67
	5–9 years	42
	>9 years	284
	Unknown	1
Job tenure	<1 years	43
	1–4 years	138
	5–9 years	119
	>9 years	113
	Unknown	1
Position	Location director	12
	Division director	67
	Department manager	233
	Staff manager	101
	Unknown	1

Note(s): The top managers in this study are the location directors. The senior managers consist of all division directors, department managers, and staff managers

Table 1. Characteristics of the 414 respondents at T2

An exploratory factor analysis showed that transformational leadership and effective strategy implementation, as measured at T2, formed two distinct constructs (Table 2); we only used the T2 dataset because many of the managers' positions had changed by T2, due to the closing of seven locations. The Cronbach's alphas of both scales were suitable, ranging between 0.88 and 0.93 (Table 3). The respondents' ages and tenures were added as control variables to the regression analyses.

The degree of *open strategizing practices adoption* was measured during the two-hour group interviews held with the 34 locations' senior management teams at T2. We used the ensuing data to determine, per location, the delta between T1 and T2 of the percentage of departments within a location that had developed a location-specific one-page visual strategy map together with the internal (e.g. employees) and external stakeholders (e.g. network partners); the percentage of top and senior managers that held monthly or weekly management dialogues; and the percentage of top and senior managers that worked with IT-enabled performance data visualizations. The mean delta between T1 and T2 of these three elements together represents the location-level degree of implementation of open strategizing practices.

The group interviews followed a semi-structured guide. The top and senior managers' groups varied a lot in size: from 3 to 34 managers (which depended on location size). Each group interview focused on the degree of open strategizing practices adoption, the perceived leadership style of the top and senior managers and the perceived effects on strategy implementation. The group interviews were audio-taped and fully transcribed, resulting in 164 pages of single-spaced text. Additionally, we held telephone interviews with the top and senior managers of the three locations which did not participate in the group interviewing because their management teams had changed too much since T1.

Data analysis

To check for self-perception biases, we ran a one-factor analysis with all the transformational leadership and effective strategy implementation survey items (Harman, 1976). The resulting factor explained 30% of the variance in the item scores, thus below the critical value of 50%.

	Factor	
	1	2
<i>My manager...</i>		
... stimulates me that I am proud to work with him/her	0.79	0.17
... listens to my personal priorities	0.76	0.06
... is seriously interested in the personal development of his team members	0.76	0.10
... makes me enthusiast for my work	0.75	0.19
... creates a feeling of working at an important mission	0.73	0.23
... is a symbol of success and high performance	0.71	0.16
... cares about my personal well-being	0.69	0.08
... builds a moral fiber	0.68	0.18
... is a role model for me	0.66	0.05
... inspires me so that my performance is better than without him/her	0.65	0.14
... glows strength and trust	0.65	0.13
... asks questions which inspire me to reflect on the way of doing my things	0.64	0.11
... asks me to help him/her solving his/her problems	0.63	0.17
... makes people prioritize their department goals above their own personal goals	0.62	0.24
... stimulates me to solve my own problems	0.49	0.12
Our organization's strategy is communicated in a clear way	0.20	0.70
The strategy and organizational goals are regularly communicated	0.22	0.68
I am conscious about the strategy and proposed direction of our organization	0.10	0.67
The management values have been communicated by management team members	0.20	0.65
Our strategy and objectives are deployed and communicated to all teams	0.18	0.61
The organization measures achievement of specific strategic goals	0.05	0.60
I am very conscious about the developmental goals of our organization	0.08	0.60
The organization defines the performance indicators in line with our strategy	0.12	0.60
Our top management has formulated their management values	0.12	0.56
The work processes of other teams are regularly discussed	0.12	0.53
Improvements are realized step-by-step	0.16	0.52
The performance indicators are primarily related to the most important elements of the strategy	-0.03	0.51
In my view, all colleagues are aware of the strategy and organizational goals	0.03	0.51
The coherence between the different work processes are regularly discussed	0.23	0.46
Performance is measured and achievements are celebrated when they help to realize the goals	0.22	0.44
The organizational goals are not clear to me (<i>r</i>)	0.07	0.42
Eigenvalue	7.39	5.57
% of variance	23.77	17.96

Note(s): Principal component analysis with varimax rotation

Table 2.
Results from the
exploratory factor
analysis

Variable	<i>M</i>	<i>Sd</i>	ICC(1)	ICC(2)	<i>R</i> _{WG}	1	2	3	4
1. Open strategizing practices adoption	47.75	27.29							
2. Transformational leadership <i>T2</i>	2.85	0.17	0.01	0.27	0.93	-0.02	0.93		
3. Effective strategy implementation <i>T1</i>	2.66	0.18	0.07	0.69	0.97	0.14	0.20	0.88	
4. Effective strategy implementation <i>T2</i>	2.70	0.20	0.08	0.76	0.98	0.40*	0.41**	0.59**	0.88

Note(s): Correlations are calculated at location level (*N* = 37) and the ICC(1), ICC(2), *R*_{WG}, and Cronbach's alphas (on the diagonal in *Italic*) are calculated at the individual level; **p* < 0.05. ***p* < 0.01

Table 3.
Correlations among
main variables, ICCs,
means, standard
deviations, and
reliabilities across two
survey rounds

After examining the validity and reliability of our quantitative data, we calculated the interrater reliability of transformational leadership and effective strategy implementation: ICC(1) and ICC(2). The ICC(1) can be interpreted as the reliability of one respondent to represent the scores of all location-respondents and should be higher than 0.08 to allow aggregation of the data at the location level (LeBreton and Senter, 2008). The ICC(2) indicates the reliability of the group means and should be higher than 0.70 (LeBreton and Senter, 2008). At T_2 , transformational leadership's ICC(1) was 0.01 and ICC(2) was 0.27, indicating that the interrater reliability of the leadership rating was low. Effective strategy implementation had an ICC(1) of 0.07 and ICC(2) of 0.69 at T_1 and an ICC(1) of 0.08 and ICC(2) of 0.76 at T_2 . We also calculated the average R_{WG} scores for each measure at each location: they were above 0.93, indicating "very strong agreement" among the respondents per location (LeBreton and Senter, 2008, p. 836). Thus, we aggregated the survey responses ($n T_1 = 548$; $n T_2 = 414$) at the location level ($N = 37$) to test the hypotheses with linear regression analyses.

The group interview transcriptions were analyzed according to Gioia's inductive coding approach (Gioia *et al.*, 2013; Locke *et al.*, 2020; Gehman *et al.*, 2018; Grodal *et al.*, 2020); it is a qualitative and interpretative research methodology that can also be used as a guideline for reporting analyses and results. In phase one, the entire research team, supplemented by five respondents, each coded four interviews. The purpose was to achieve inter-coder reliability and face validity from the respondents' points of view. The result was a more calibrated style of coding and aligned interpretation of the data between the different coders. Using the resulting elaborate codebook, they then coded all the remaining interviews line-by-line. Some example codes are: ownership, input possibilities, or acceptance. In phase two, eight of the coders elaborately discussed the second-order categorization of each sub-category and the correct interpretation of the data during five four-hour sessions. This resulted in 16 first-order codes related to a leader's role in the adoption of open strategizing practices and, in turn, effective strategy implementation (such as: commitment, involvement, and motivation). Finally, in phase three, all five of phase one's management researchers discussed the phase two results with three of their colleagues and the principal investigator, resulting in mutual agreement regarding relevant leadership characteristics (second-order codes) and illustrative quotes per first-order code. The data structure is presented, pursuant to Gioia *et al.* (2013), in Table 4.

To prevent researcher biases in qualitative research, Morse *et al.* (2002) suggested ensuring methodological coherence and rigor. In line with this, we used the group interviews to provide more depth to the survey-based findings and to interpret possible differences between the locations. During the iterative process of coding and discussing the findings, the research team, headed by the principal investigator, constantly switched between the micro-level findings and the theoretical conceptualizations to build a solid foundation from the first-order and second-order codes (as propagated by Morse *et al.*, 2002).

Results

Hypotheses-testing

The degree of open strategizing practices adoption was significantly correlated with effective strategy implementation at T_2 ($r = 0.40$, $p < 0.05$; see Table 3). Moreover, at T_2 , transformational leadership had a significant positive correlation with effective strategy implementation ($r = 0.41$, $p < 0.01$).

The effects of the age and tenure control variables were not significant in step 1 of the regression analyses where effective strategy implementation at T_2 was taken as the dependent variable (Table 5). We found a significant positive relationship in both steps 2 and 3 between the adoption of open strategizing practices and effective strategy implementation at T_2 (step 2: $\beta = 0.44$, $p < 0.01$; step 3: $\beta = 0.33$, $p < 0.05$). Thus, hypothesis 1 was supported.

Table 4.
Data structure and qualitative remarks regarding a Leader's role

Location	Exemplary quote	First-order code	Second-order theme	Aggregate dimension
22	"Our leader believes in the A3 approach"	Belief	Leader's intrinsic motivation	Leadership
17	"You should have trust in the A3 approach to achieve results. Only then will added value be realized"	Added value		
12	"A leader's commitment is a must"	Commitment		
2	"I look [name manager] has embedded his soul and salvation in the A3 approach and led us through the implementation process"	Dedication		
17	"Personal interest and intrinsic motivation of all managers. 90% of the managers adopted and supported the A3 approach"	Motivation		
15	"You feel you can let the individual progress reports of the maps go because you have more open and transparent frequent management dialogues to share the progress and to redefine priorities together"	Trust		
8	"Stimulating and inspiring each other is a result of the agreements about actions and results"	Inspiration		
6	"There is a call for more clarity about the personal 'why?'"	Personal why		
7	"The dialogue facilitates the connection between employees and their managers"	Connection	Leader's empowerment	
16	"In the past, only the executive board was involved [in the strategy process], nowadays it is every manager and employee"	Involvement		
12	"Managers and employees are more 'in control'. At different moments, leaders pay attention to the importance of co-creation and individual contributions"	Co-creation		
17	"There is room for defining your own actions to achieve the results and there are periodical management dialogues to facilitate the progress"	Freedom		
36	"Employees are more involved than before in the introduction of the A3 approach"	Stimulation		
8	"It is the way you propagate the benefits of a new strategizing approach. Do not 'tell and sell', but ask what the managers and employees need"	Ask for people's needs		
45	"This is really a culture change. Not waiting to get progress reports from other departments, but creating your own progress reports by yourself. Realtime progress reports through improved ownership becomes a reality. Culture change begins on making employees responsible"	Responsibility		
32	"The bottom-up input is strengthened, using the new approach"	Bottom-up input		

Independent variable	Effective strategy implementation $T2$		
	Step 1	Step 2	Step 3
Mean age by location	0.26	0.25*	0.19
Mean tenure by location	0.07	-0.22	-0.15
Effective strategy implementation $T1$		0.44**	0.39**
Open strategizing practices adoption		0.44**	0.33*
Transformational leadership $T2$		0.37*	0.47**
Transformational leadership $T2$ X open strategizing practices adoption			0.29*
R^2	0.08	0.62**	0.68**
ΔR^2		0.55	0.06
ΔF	1.44	15.01**	5.13*

Table 5. Results from the regression analysis

Note(s): There was no evidence of multicollinearity; none of the variance inflation factors were > 0.95 . $N = 37$; * $p < 0.05$, ** $p < 0.01$

In step 3, we added the interaction between transformational leadership and open strategizing practices. We found that transformational leadership moderated and enhanced the relationship between the degree of open strategizing practices implementation and effective strategy implementation ($\beta = 0.29$, $p < 0.05$). Hypothesis 2 was therefore also supported.

Qualitative findings

How exactly does transformational leadership work in the relationship between open strategizing practices and effective strategy implementation? During the group interviews, the managers made remarks linked to the role of leadership; see Table 4. For instance, the managers emphasized that top and senior managers' commitment and dedication to the adoption of the open strategizing practices were instrumental in the effective implementation of the strategy: "Look, [name manager] has embedded his soul and salvation in the A3 approach and led us through the implementation process." This citation shows that 'intrinsic motivation' is a key leadership characteristic in the context of open strategizing; this aspect resembles the transformational leadership sub-dimensions "inspirational motivation" (through clarifying their personal "why" and showing a personal interest and motivation) and "idealized influence" (through role-modeling a strong belief and commitment). The open strategizing practices also led to improved ownership and the feeling of being taken seriously. For instance, some managers explained that they now had a better idea of their responsibilities at work and the impact and contributions of their work. These effects depended, in their view, on the type of top and senior managers' leadership style. The managers stressed that effective implementation requires "leaders to pay attention to the importance of co-creation and individual contributions," so both management and employees feel they are in control. They also remarked that leaders should "not 'tell and sell', but ask what needs the managers and employees have." Another manager noted that "there is room for defining your own actions to achieve the results." Thus, another leadership characteristic that arose after content analyzing the group interviews entailed: "empowerment," which is in line with the transformational leadership sub-dimensions "intellectual stimulation" (through involving and stimulating bottom-up input) and "individualized consideration" (through making a connection and asking for and trying to meet followers' needs).

Still, some respondents voiced that the intervention was forced upon them (e.g. no dialogue); they saw the intervention as a result-oriented approach which had to be strictly followed and which negatively affected the level of effective strategy implementation. In that

same spirit, some mentioned that their local unit or location culture did not fit the required “participation, inspiration, and intellectual stimulation”. At those locations, the adoption of the three practices was felt as somewhat overwhelming and “overly complex”. Indeed, we observed quite different receptions of the open strategizing practices between locations with and without transformational leaders. At locations where managers displayed a high degree of transformational leadership, management was leading in the planning, communication, reporting, and follow up. When there was little transformational leadership, such direction was lacking as was leaders’ intrinsic motivation to champion the open strategizing practices. There were also concurrent differences in the practical support by leaders during the introduction of the open strategizing practices and in the alignment of those practices with existing local cultural values like empowerment, result-orientation, and co-creation. Some of the respondents even noted that it would take three to five years before the practices were fully adopted. The qualitative study therefore enriched our understanding of the outcomes of our quantitative test of [hypothesis 2](#): that senior managers’ transformational leadership style conditions the effective adoption of open strategizing practices towards effective strategy implementation.

Discussion

Open strategy is a multifaceted and fast-developing phenomenon across sectors ([Seidl et al., 2019](#)). This study among the top and senior managers of 37 locations of a large Dutch governmental organization support the hypothesized relationship between the adoption of three intertwined open strategizing practices and effective strategy implementation within local prison locations; it offers evidence and illustrations of the moderating role of the transformational style of local leadership. Group interviews further enriched our understanding of how transformational leaders contribute to effective strategy implementation. The analyses point to two attributed leader characteristics in particular, “intrinsic motivation” and “empowerment”, that resemble the four transformational leadership dimensions. As will be elaborated below, these findings contribute to the rapidly emerging theorizing on practicing open strategy.

First, the findings link the adoption of *open strategy* to the *strategy implementation theory*: the current study exemplifies how deploying an integrated set of open strategizing practices can lead to effective strategy implementation over time. While most people see strategizing as an inherently complex process ([Burgelman et al., 2018](#); [Liedtka and Kaplan, 2019](#)), we illustrate here that this process can be simplified by using a number of practices for participatory goal prioritization and cross-hierarchical dialogue. [Weiser et al. \(2020\)](#) proposed three interrelated activities for effective strategy implementation, namely: conceptualizing, enacting, and coordinating. The here studied open strategizing practices, which are based on existing quality frameworks and promote consistency and participation, contribute to establishing them. By jointly developing a strategy map, managers, employees and other stakeholders make sense of the organizational strategy and explicitly derive from it the strategy for their own local context. The periodical management dialogues, which are informed by real-time visual performance dashboards, support goal enactment and coordination. While some management reporting dialogues may not always lead to a more strategic outcome orientation or attention to strategy deployment but may, if carried out well, contribute to more teamwork which, in turn, can aid in achieving operational performance goals ([Baird et al., 2011](#)). Our intertwined three-practices intervention is in line with the transparent, participative, inclusive, and IT-enabled strategizing practices that are called for nowadays which is far beyond [Latham and Locke’s \(1990\)](#) well-known participative goal setting. Apart from co-conditioning effective strategy implementation, the three open

strategizing practices reported herein may be able to help mature employee engagement and an organization's internal democracy (Adobor, 2020).

Secondly, this study also points to the importance of *transformational leadership behaviors* as a condition for strategy implementation through open strategizing (Burgelman *et al.*, 2018; Tavakoli *et al.*, 2017; Whittington *et al.*, 2011). Other scholars (Colville and Murphy, 2006; Leibbrandt and Botha, 2014) showed the importance of such an enabling role in a public sector organization's strategizing process, involving both strategy development and effective implementation. As our qualitative results demonstrate, leaders must be actively engaged in their location's strategy-mapping and implementation process, as well as show intrinsic motivation through prioritizing the empowering of their staff. Attaining a high level of effective strategy implementation requires top and senior managers to display transformational leadership behaviors (including intellectual stimulation, idealized influence, individualized consideration, and inspirational motivation) (Avolio and Bass, 2002) to have a positive effect, along with the adoption of the three open strategizing practices. This finding is in line with other studies showing that a transformational leadership style also enhances followers' intrinsic motivation to contribute to their organization (Al Harbi *et al.*, 2019; Siangchokyoo *et al.*, 2020); the more they feel welcomed to share their thoughts about the organizational affairs, the more they feel empowered and vice-versa. Once people are part of a strategizing process and are facilitated to do so by their leaders, they will put more energy into realizing the plans they helped to build (Amrollahi and Rowlands, 2017; Nickerson and Argyres, 2018). Future studies of the behavioral conditions related to open strategizing leading to effective strategy implementation are urgently needed (Liu *et al.*, 2017; Hutter *et al.*, 2017).

In addition, it must be noted that our study context (a national prison agency) is characterized by a rather typical organizational culture. Organizational culture builds on often taken-for-granted assumptions and values concerning how the world works and how staff can best collaborate to achieve their collective goals (Schein, 1990; Giorgi *et al.*, 2015). Giorgi *et al.* (2015) captured culture as a set of values, stories, frames, toolkits, and categories that are connected with an institution's mission, vision, and processes. Within all of this national prison system's locations, the mission, vision, structure, and processes were highly standardized, even in the smallest locations. Most prison cultures are characterized by closed doors, strict rules, and rule-driven, standardized hierarchical practices (Ellis, 2021). This specific context may have influenced the results of our study, magnifying the potential impact of the top and senior managers' leadership style. Yet, despite the expected similarity between the locations in terms of their strong organizational culture, as well as standardized structure and procedures, we still found variance across the locations in terms of leader's "intrinsic motivation" and "empowerment". Thus, future longitudinal empirical studies of such firms might teach us more about how open strategy practices can vary and be best conditioned.

Even though open strategy is usually studied in business contexts (Tavakoli *et al.*, 2017), this study shows that the here adopted practices—in the public sector—can be deployed in any organization. New Public Management reforms have motivated public organizations towards strategic flexibility, focus, and effective implementation (Hansen and Ferlie, 2016; Hansen and Jacobsen, 2016). A combination of having a clear central direction with behaving more agile in its decentral public-sector locations seems to contribute to effective strategy implementation: thus this does not only apply to commercial start-ups or other for-profit organizations (Collis, 2016). Governmental institutions have long been stifling bureaucratic entities but public institutions are operating increasingly in dynamic contexts. Some scholars voiced a need for public service organizations to create more value for their stakeholders (Osborne *et al.*, 2015). Given its inherent dialogue-orientation and the requirement to "open up" to what stakeholders (including external ones: citizens) may think about public service

provision, the open strategy approach can also contribute to a more transparent and inclusive learning process.

Finally, our findings point to the need to examine “constellations” or “bundles” of strategizing practices instead of the effects of single practices. Following the popular saying that “the whole is more than the sum of the parts”, such a multiple-practices examination, including the role of leadership styles, can provide new insights; single open strategizing practices may strengthen the effects of other, related ones (Seidl *et al.*, 2019). This study focused on practices with a clear dialogue-orientation; future studies could investigate interventions with even more externally related strategizing practices (Whittington, 2019), including the role of frequent customer (or: citizen) feedback on an organization’s effective strategy implementation. Dialoguing (also) with external stakeholders is expected to affect organizational practices even more strongly (Baird *et al.*, 2011), provided that these practices are invoked and carried out by a supportive type of leadership style such as the transformational one.

Strengths, limitations and future research

This study’s strengths are its: (1) use of mixed methods; (2) collected data from multiple top and senior managers per location, involving more than 400 survey respondents; (3) longitudinal design; (4) large number and different backgrounds of coders, which improved the qualitative analysis; and (5) contribution to engaged scholarship by examining a consulting intervention consisting of a bundle of three open strategizing practices.

Nevertheless, adopting the three focal open strategizing practices was perceived by some interviewees as forced while the one-organization focus may have reduced the study’s external validity. Despite observing relatively high variation between the locations, showing that one organization can also harness a wide variety of open strategizing practices and effective strategy implementation, we found low standard deviations among the respondents in all the locations. Also, the differences in location sizes and number of managers per location (ranging from 3 to 34) may have influenced the results. Large locations are possibly more bureaucratic (Knill *et al.*, 2019); realizing open strategizing and strategy implementation in a large location may be more difficult than in smaller entities (Kearney *et al.*, 2019; Wolczek, 2018). During the first year of open strategizing adoption, the external stakeholders were not always included in the process. It would be relevant to study the effects of mobilizing more external stakeholders on the effectiveness of strategy implementation (Rajala *et al.*, 2019).

Secondly, although we also analyzed qualitative data, some level of self-report bias may have still occurred. Future longitudinal studies ought to gather more objective performance indicators, for instance actual goal achievement or client-rated service quality. Moreover, to capture *all* the time-lapsed effects of leadership and strategizing practices on effective strategy implementation that may take more time to evolve, we advise an even longer time span between the first and second measurement. Many interviewees indicated that more time was needed for an adequate culture change. After all, attaining an open strategy approach is no small feat, especially in the public sector.

A third limitation is that the Dutch national prison agency was reorganizing itself during the study period. The seven locations that were not included in the *T2* data collection were going to be closed in the near future, which could have potentially biased the results. Moreover, all the locations had similar organizational structures, disciplined processes (e.g. management control), and functions. These characteristics could have influenced the high interrater agreement in terms of the effectiveness of the strategy implementation at both points in time.

Although we found a low interrater reliability for transformational leadership, this may have led to an underestimation of the real relationships of the variable with other variables

and since correction for the unreliability of the measures (correction for attenuation) results for stronger relationships. Therefore, we expect that the real interaction effect between transformational leadership and the intervention is even stronger. Another point concerns the fact that we only utilized the *T2* measure of transformational leadership. Although we measured this variable at both *T1* and *T2*, there were some changes in that a number of managers had left directly after *T1*. Moreover, we learned from the group interviews at *T2* that the current managers were most involved in the strategy implementation process. Nevertheless, future research should aim for repeated measurements.

Additionally, we focused here on transformational leadership as a moderating variable; follow-up studies can broaden and deepen our search for more specific conditional leader behaviors, values, and/or other contextual factors (e.g. [Anderson and Sun, 2017](#)). Such future studies could be done in countries where the level of (macro-culturally determined) power distance may vary. The relatively low power distance in the Netherlands may explain, to some extent, why the herein studied intervention worked so well ([Den Hartog et al., 1999](#)). This national-cultural characteristic may have also counterbalanced the strong prison culture that would have otherwise led, for instance, to overly strict “following of orders” or implementing the one-page strategy, no matter what. Future research can study other contextual factors that may influence the relationship between adopting open strategizing practices and effective strategy implementation. For instance, the intervention could be enriched by also incorporating other digital strategizing tools to further facilitate today’s needed strategic flexibility ([Brozovic, 2018](#)). Many practitioners would be helped by scholars finding answers to related questions like: In which contexts are open strategizing practices more or less effective? What are the predictors of effective adoption of open strategy and its implementation success? Such questions have not been addressed yet ([Seidl et al., 2019](#)).

Practical implications

Even in a bureaucratic context, effective strategy implementation can ensue through various open-strategizing practices, such as the ones invoked by our intervention-type study, especially if combined with a transformational leadership style. We advise managers who wish to implement their strategies effectively, to start by adopting the here studied combination of open strategizing practices: (1) the co-creation of one-page visual strategy maps [1]; (2) periodical management dialogues during which the progress made towards implementing the defined strategy is discussed with staff at various hierarchical levels; and (3) the frequent and transparent provision of IT-enabled performance data visualizations [2]. This joint intervention fits an open strategy approach, based on co-creation and collaboration, that enables internal and external participation; [Whittington \(2019\)](#) characterizes this kind of development as a path from strategic planning and management towards open strategy.

Secondly, when adopting open strategizing practices while aiming for effective strategy implementation, top and senior managers (including those at decentralized locations) must show a clear and even inspirational motivation for the change, and stimulate the intellect of their followers. [Burgelman et al. \(2018\)](#) stressed, for example, the importance of a leader’s facilitation of performance dialogues as they enable employees to understand better their day-to-day contribution to the organization’s strategic goals. Whereas this comes more natural to some managers, others might need training or coaching before they can adopt these behaviors in the workplace. Indeed, some managers in the studied organization did not feel comfortable with the new strategizing requirements, and new leaders had to be recruited to replace them. Hence, top managers who bravely opt for open strategizing must realize that it asks more from the behaviors of their entire leadership team.

Notes

1. See <https://www.onepagestrategizing.com> for a template of a one-page visual strategy map.
2. See <https://www.a3online.io> for an impression of IT-enabled performance data visualizations.
3. See: www.macrotrends.net/countries/NLD/netherlands/crime-rate-statistics.

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