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**3RD-5TH SEPTEMBER**

**ASTON UNIVERSITY BIRMINGHAM UNITED KINGDOM**

This paper is from the BAM2019 Conference Proceedings

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**Leading Strategic-alignment Type Dialogues Effectively:  
A Longitudinal Field Study**

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## **Leading Strategic-alignment Type Dialogues Effectively: A Longitudinal Field Study**

Organisations constantly seek to improve their internal strategic alignment in order to achieve their strategic goals. Examples of popular interventions are co-creation of strategy execution charts that fit one page; periodical management dialogues following the Plan-Do-Check-Act cycle; and (performance data) visualisations. We investigate the longitudinal effects of such an intervention in a Dutch governmental organisation with 37 locations. The top- and middle managers of all these locations filled out a questionnaire at two points in time (T1 and T2). Our hypothesis-testing showed that transformational leadership moderates the positive relation between the adoption of the above-mentioned management control practices and strategic alignment. Additional qualitative group interviewing and a comparative case study gave additional depth regarding the experiences of 34 of the 37 management teams. Our findings contribute to the strategy-as-practice domain by showing how leadership can help prepare organisations for a more open strategy approach such as the intervention studied herein.

**Keywords:** Strategic Alignment; Management Control Practices; Transformational Leadership; Open Strategy; Longitudinal Field Study

**Topic:** Strategy-as-Practice

**Word count:** 5,696

## Introduction

New Public Management reforms have motivated public organisations towards strategic flexibility, focus and alignment (Rosenberg and Jacobsen, 2016; Hansen and Ferlie, 2016; Hansen and Jacobsen, 2016). Organisations can gain a lot through aligning their strategic goals internally. Internal strategic alignment encompasses employees': 1) awareness of the organisation's strategic priorities, 2) perceived importance of those priorities, and 3) understanding how their daily tasks and roles directly contribute to the organisation's capacity to achieve its priorities (Boswell, 2006). Biggs *et al.* (2014) demonstrated that if people's job tasks and organisational priorities are well-aligned this helps to maintain their high levels of work engagement. Management-control practice adoption can enhance the effectiveness of the strategic alignment in organisations (Bourne *et al.*, 2018). In the past decades, the so-called one-page annual plans, and accompanying Plan-Do-Check-Act approach of management reporting, have gained practical popularity (Bell *et al.*, 2013; Wongrassamee *et al.*, 2003). The aim of such participative and deployment practices (other practices are, for example, Balanced Scorecard (Qezada *et al.*, 2009; Barad and Dror, 2008; Hoque, 2014); EFQM (Balbastre-Benavent, 2011) and Hoshin Kanri (Tortorella *et al.*, 2018)), are to enable congruence among the actions and choices of the individuals across the organisational levels so as to realise the strategy (Martin, 2010). Saunders *et al.* (2007) found over 50 deployment practices in their benchmark study. They lead to a shared and clear sense of direction; consistency in strategic plan deployment; coherence between organisational units; and high quality performance feedback (Doeleman *et al.*, 2012; Ten Have *et al.*, 2003). Moreover, the adoption of such strategic practices enables organisations to flexibly and effectively adapt to the more-and-more rapid contextual changes they encounter.

Despite the proclaimed merits of more participative and agile management control practices, many organisations are still struggling to adopt them effectively while at the same time achieving a more flexible state of internal strategic alignment. Public-sector organisations in particular struggle to adopt and maintain management control practices, given their political context and “issues of equity, transparency and probity” (Radnor and Johnston, 2013, p. 911). Some research has pointed towards the influential role of top-management support, but examinations of which specific behavioural style would induce solid strategic alignment hardly exist (Fullerton *et al.*, 2013; Radnor and Johnston, 2013). Moreover, longitudinal, mixed-methods studies of the effectiveness of management control practices for strategy-as-practice are sparse.

The goal setting theory (Latham and Locke, 1990; 2015) states that improving performance on the work-floor is facilitated when leaders enable participative goal-creation, and when employees see the goals as specific and ambitious. Latham and Locke (1990) found a linear relationship between the difficulty level of a goal and the person’s job performance. But nowadays, effective organising requires much more flexible, adaptive strategizing than just ‘one-off’ participative goal setting: lately the open strategy theory has evolved, which builds upon the earlier developed fields of strategic planning and strategic management (Whittington *et al.*, 2011). Following Whittington *et al.* (2011) the open strategy approach may facilitate the required strategic flexibility and consists of four core tenets: transparent, participative, inclusiveness and IT-enabledness. In line with Simons (1995), creating goals participatively and engaging anticipatively in systematic performance feedback are hallmarks of the increasingly relevant interactive type of organisational controls (Theriou *et al.*, 2017). Simons’ control framework levers give some clues about the properties of interactive control systems (Lopez-Valeires *et al.*, 2016), e.g.: “data generated by the system are interpreted and discussed in face-to-face

meetings of superiors, subordinates and peers” (Simons, 1995, p. 97); “and “provide information about strategic uncertainties” (Simons, 2000, p. 220) that “trigger revised action plans” (Simons, 1995, p. 108). Such interactive controls through factual information-fed dialogues facilitate strategic flexibility or ‘emergent strategy’ (Macbeth, 2002).

Achieving such strategic flexibility requires leaders’ and employees’ pro-active and re-active abilities (Brozovic, 2018). There is thus a need to specifically address also the role of *transformational leadership* in achieving strategic alignment that at the same time allows for flexibility (Azhar, 2012). Transformational leaders are claimed to enable (strategic) change in organisations by defining the need for change, creating new visions, and mobilising commitment for these visions (Den Hartog *et al.*, 1999). Cäker and Siverbo (2014) showed the importance of socio-ideological controls and trust in the supervisor’s support for strategic alignment. Moreover, Abernethy *et al.* (2010) find a relationship between transformational leaders and effective use of control systems. In addition, Akhtar (2019) recently advocated research on interventions that aim to improve the effectiveness of strategic performance management systems. The present study answers these calls by examining the following research question: *How does transformational leadership affect the effects of adopting a constellation of management control practices on the organisation’s strategic alignment over time?*

In answering this question with mixed methods, we aim to contribute knowing more about how organisations may be prepared for an open strategy approach (Whittington *et al.*, 2011). Tavakoli *et al.* (2017) addresses the need for research how an open strategy approach can be attained by reusing and re-combining existing practices or routines from other fields. Insights from other sectors, such as the increasingly dynamical public sector, may enrich our understanding of strategic flexibility (Brozovic, 2018). By

putting strategic practices and practitioners in the centre, the present study also answers calls for more practically-relevant management research (Vaara and Whittington, 2012). Moreover, our study corresponds with Jarzabkowski's (2004) strategy-as-practice research agenda that focuses on examining the characteristics of the within-organisation context associated with a more adaptive, recursive use of management practices. Finally, Vaara and Whittington (2012) asked for strategy-as-practice research on the enabling and constraining effects of social practices; effective leadership is one of them. In doing so, our longitudinal field examination also contributes to managers' understanding of their own role in effectively engaging in strategic alignment initiatives.

## **Hypothesis development**

### *Strategic alignment*

Rauniar *et al.* (2008:133) defines strategic alignment as “the extent to which a firm's overall business, product, and technology guide the product development contents and processes”. We conceptualise strategic alignment as proposed by Boswell's (2006) line of sight construct which focuses on employee's perceived alignment between their activities and organisational strategic priorities. This conceptualisation is different from other related constructs, namely: ‘person-organisation fit’ that describes the congruence in values held by an individual and the organisational culture (Kristof, 1996), or ‘goal congruence’ between work-related goals of employees and their supervisors (Boswell, 2006). It is also distinct from ‘strategic orientation’, which focuses on a broader inclination to work proactively, with a high degree of ownership and knowledge of work processes (Parker *et al.*, 1997). In this study we operationalise strategic alignment based on the work done by Ten Have *et al.* (2003), who defined the following four guiding

elements of effective strategic alignment (also based on Hardjono *et al.*, 1996): direction, consistency, coherence, and feedback. Below we explain each element.

Clarity with respect to *direction* refers to an organisation's common vision and its choices in terms of strategy and paths set. Vision and strategy create focus. *Consistency* mainly refers to the translation of the common vision and success factors from one management level to the next (Kober *et al.*, 2007). Vision and key success factors are converted into concrete objectives on the different management levels. In this way, each manager should be able to experience how their individual contribution fits in the greater whole. *Coherence* concerns the horizontal attunement among processes, chains, sectors, departments, and individuals. *Feedback* entails structuring management information in such a manner that people are being given the opportunity to learn on all levels and in all different time perspectives (daily, weekly, monthly, yearly). By a more prominent presence of these concepts (as experienced by the staff members of the organisation), organisations are expected to be more successful in the realisation of longer-term change processes in a goal-oriented and purposive way. But how can such effective, and agile, strategic alignment be achieved? This study highlights the effects of the adoption of various management control practices as well as managers' leadership style in this respect.

#### *Management control practices*

Management control is defined by Anthony (1988) as: 'the process by which managers influence other members of the organisation to implement the organisation's strategies'. Anthony and Govindarajan (2003) distinguish three clusters of activities in this process: (1) planning, resource allocation, and the coordination of activities, (2) communication of the goals and objectives, an interactive monitoring of these goals and objectives, and influencing people in their performance, and (3) IT enabled evaluating



and monitoring information and taking decisions (and action) in a corrective or preventive manner. The importance of this third element is recently reported by Walldius (2018). For the public sector, Flynn (2007) proposes three similar categories by arguing that management control in the public sector can be divided into three areas of interest: activities related to policy deployment, management communication, and management information. In brief, we perceive three types of practices are considered as central in management control theory: performance management, management communication and management information. Examples of those three types of practices are: creating a strategy execution chart in a participative way, organising frequent management dialogues and providing adequate management information focussed on the issues of the one page (A3 paper format) annual plan. This study investigates to what extent strategic alignment can be achieved by using such management control systems (Simons, 1995; Widener, 2007). Our first hypothesis is thus (Figure 1):

H1: The degree of management control practices implementation is positively related to strategic alignment.

Insert Figure 1

### *Transformational leadership*

Another important role for improving strategic alignment is leadership style (Hetland et al., 2018). Only a few leadership styles are empirically or conceptually accepted regarding to scientific methodological criteria (Yammarino et al., 2005). As noted by Yammarino et al. (2005) and Dinh et al. (2014) the transformational leadership style of Bass (1985) is one of the most studied leadership styles regarding to performance improvement. Bass (1985) distinguishes two active styles of leadership: transactional and

transformational leadership, as well as a third contra-variable, namely passive leadership ('laissez faire'). Also recent studies show the relevance and/or empirical evidence of the impact of transformational leadership on organisational performance (Nielsen and Cleal, 2011; Nielsen and Daniels, 2012; Piccolo et al., 2012). The recent publications on leadership especially emphasise the significance of transformational leadership (Horstmeier et al., 2016; Buil et al., 2019; Weller et al., 2019). According to Avolio and Bass (2002), transformational leadership consists of four dimensions: charisma, inspiration, intellectual stimulation, and individual attention. A charismatic leader is a leader who has gained the confidence of his/her employees, has a vision, and is respected by his/her staff. Inspiration concerns the communication of the vision and the exemplary function of the leader. A leader who is intellectually stimulating is capable of promoting new ideas and motivating people to evaluate both their work and themselves critically. The category 'individual attention' refers to supporting and coaching the employees as well as giving feedback (Avolio and Bass, 2002).

The leadership literature recommends numerous specific strategies and activities that leaders should employ to improve strategic alignment. Still, few of those studies have moved beyond descriptive and prescriptive perspectives (Liu, 2010; Higgs and Rowland, 2000; 2005). An exception is the empirical evidence available of the positive influence of the transformational style of leadership on performance, organisational change and strategic alignment (i.e., Groysberg and Slind, 2012; Shao and Webber, 2006; Ates et al., 2018; Souba, 2011; Kaufman, 2014; Howell and Hall-Merenda, 1999; Lowe et al., 1996; Mullen and Kelloway, 2009; Dumdum et al., 2002; Judge and Piccolo, 2004).

The interaction of leadership and management control practices appears to be of great importance for its functioning (Umans et al., 2018; Nguyen et al., 2017; Gong and Subramaniam, 2018; Doeleman et al., 2012; Bourne et al., 2005; Abernethy et al., 2010;

Hartmann et al. 2010). Fandray (2001) identifies a need for a more continuous leadership interaction by a dialogue about the organisation's performance between the management levels and the employees. In this dialogue, feedback has to be exchanged more intensively and information has to be shared about the contribution to the strategy (Heracleous et al., 2018). Here, the managers' leadership-skills in giving feedback, in participative leadership as well as in creating a climate of learning, are of great importance (Aguinis and Pierce, 2008).

Other studies argued for a moderating effect of transformational leadership in relation to different aspects of the strategy-as-practice field (i.e. Green et al., 2013; Syrek et al., 2013; Kearney and Gebert, 2009; Feinberg et al., 2005; Wang and Walumbwa, 2007; Engelen et al., 2015; Epitropaki et al., 2005; Jansen et al., 2008). For instance, Vasilaki et al. (2016) found that transformational leadership behaviours moderate the relation between the implementation of HRM practices during mergers and acquisitions and positive employee behaviour and employee identification with the new organisation. They called for hypothesis-testing in order to achieve a finer-grained understanding of the role of transformational leadership on the achievement of human integration and organisational identification. Transformational leadership of principals also positively moderated the relationship between work engagement and employees' openness to change (Jeong et al., 2016). Hence, our second hypothesis:

H2: Transformational leadership moderates the relation between the degree of management control practices implementation and strategic alignment.

## **Data and methodology**

### *Research design*

We followed a quasi-experimental research design (Shadish *et al.*, 2001) to determine if a change in terms of strategic alignment took place after the implementation of a constellation of management control practices (i.e., our carefully crafted intervention). The variables were measured pre- and post-intervention at T1 and T2, with two years in between both measures. A questionnaire measured each of the concepts and tested the relations within the proposed hypothetical framework (Figure 1). In order to better understand our findings and the role of transformational leadership, we followed up with a qualitative research in two parts: (1) semi-structured group interviews with the majority of the management teams who participated in the survey part of our study to identify leadership conditions and (2) an in-depth cross-case analysis of two of the ‘early adaptor’ locations. The methodology of this multiple case-study was in line with Yin (2008, 2011).

#### *Context and sample description*

The context of the intervention is the National Agency of Correctional Institutions (DJI) of the Dutch Ministry of Justice, which consists of four sectors: Correctional Services, Forensic Care, Judicial Institutions for Young Offenders, and Special Facilities. On behalf of the Minister of Justice, the DJI takes care of the execution of penalties and restraint measures imposed after the verdict by a judge. With about 19,000 employees the DJI is one of the largest organisations in the Netherlands. Annually it accommodates about 80,000 ‘citizens’ for a shorter or longer period of time. The research was conducted at 44 locations (prisons for adults) of the Correctional Services sector of the DJI at T1, at T2 a total of 37 locations participated. The study was restricted to 37 of the 44 locations of the sector Correctional Services because of the comparability of the structures, procedures, contexts, and sizes of the locations. The seven locations that did not continue

their participation would be closed in the nearby future, which may have biased the results.

Ittner (2008) argues that a sample reduced to only one sector or industry branch has an important advantage, namely an implicit control over the complex of disrupting factors which influence the results of cross-sectional studies. In addition, a one-sector approach increases the study's internal validity. We chose this particular sector for two reasons. First, it is the largest sector within the DJI; in terms of size, the Correctional Services sector has the most locations (37), while its staff include executive as well as directing managers. Further, these locations have similar organisational structures, processes (e.g., management control), and functions.

In order to obtain a representative picture of each location, we required a response minimum of 70% of the managers was observed. This minimum was obtained at all locations. The respondents' functions at the locations were mainly department manager, unit director, and location director. To obtain a maximum response rate, all locations were visited multiple times. This resulted in a response rate of 83% of the managers working in this sector (Table 1). The distribution of the respondents among the various functions provided a representative picture. Of those who did not respond some were willing to explain why. Their most important reasons were: (a) the project had not been given priority by the location director, (b) their location was undergoing significant changes at the time, and (c) several other reasons, such as illness and holidays. The non-response was equally spread over the different functions. To evaluate if there was a possible order effect pointing to a non-response bias, the averages of the first 10 respondents were compared with those of the last 10 respondents at three locations. This comparison yielded no noticeable differences, which confirmed that there was no non-response bias.

Insert Table 1

### *Intervention*

A well-crafted constellation of three management control practices were implemented at all management levels of each location during the two year period between both measurements. The intervention included the following control practices: (1) Co-creation of strategy execution charts at all management levels following the EFQM Excellence model (Figure 2 (Doeleman *et al.*, 2014)). This is a form of policy-deployment as proposed by Joleyemi (2009) and Lee and Dale (1999); (2) periodical management dialogues following the Plan-Do-Check-Act cycle, and inquiry based on positive psychology; and (3) frequent, synchronized visual management information that provide feedback on the planned actions and results that facilitated the periodical dialogues. This digital reporting tool presented the performance information in line with the content of the strategy-execution charts. This constellation of management control practices adhered to the various tenets of open strategy: they supported a transparent, participative and inclusive strategy making and implementation process and were IT-enabled.

First of all, consistent with Paroutis *et al.* (2015), the examined intervention consisted of introducing a strategy-mapping tool. The use of the EFQM Excellence model on the strategy execution chart enabled the managers to take an integral approach and think in a result-oriented way (see for a visualisation: Figure 2). The creation process of the strategy-execution charts was facilitated by visualising the interactions between particular goals, the intended results, and the necessary actions to achieve them. The visual attractiveness of this one page chart contributes to the experienced simplicity and visibility (Lumpkin and Dess, 1995; Irwin, 2002; Paroutis *et al.*, 2015; Collis, 2016),

which stimulates interpretation and adaptation. The use of these charts at all levels in the organisation facilitates transparency and credibility, what is the most important aspect of visualizations (Li *et al.*, 2018).

Insert Figure 2

The periodical management dialogues were characterized by two principles. The first was a bottom up leading role of the responsible manager to create the agenda for the performance dialogue, based on the strategy-execution chart. This practice is in line with Groen *et al.* (2017), who found that co-developing performance measures improves job performance. The second principle was that the agenda for the performance dialogue was influenced by the successes of the past period. Frederickson and Branigan (2005) found that positive experiences stimulate engagement and commitment.

The third key element was inspired by Kettinger and Grover (1995) and Li and Ye (1999). They argued that there is a relation between information provision and organisational performance, especially if the information is based on a strategic framework. Moreover, information is indispensable in monitoring progress. It is likely that strategic alignment will be stimulated whenever management information is easily accessible, visually attractive and in line with the framework of the strategy execution chart.

The more detailed implementation aspects (like frequencies, timetable, roles) differed between the locations, which is in line with the contingency approach to strategy-implementation of McAdam *et al.* (2019), Andrews *et al.* (2011) and Bedford *et al.* (2016).

*Measures*

The questionnaire was validated after it had been filled out by the managers of the first seven locations. It contained items from other, previously validated questionnaires.

The *degree of management control practices implementation* in each unit was defined from a group interview of the unit's senior managers at T2. We used these interviews to determine the delta between T1 and T2 of the percentage of departments (within each unit) with a strategy execution chart, the percentage of managers within each unit with monthly management dialogues, and the percentage of managers within each unit working with synchronized management information. The average delta between T1 and T2 of these elements represented the unit-level degree of implementation of management control practices.

*Strategic alignment* (SA) was measured at both times through a composite survey with sixteen items that capture both the perceived direction, consistency, coherence and feedback of relevant information at each unit (Ten Have *et al.*, 2003, p. 167). The study we used to measure 'direction' was that of Patterson *et al.* (2005), who developed a validated questionnaire to examine to which extent managers and employees are familiar with the organisational goals and whether these goals are clear to them. His questionnaire, the Organisational Climate Measure, consists of 17 items. A number of items from this questionnaire formed a subscale relevant to this study: clarity of organisational goals. These items are added to a second questionnaire for measuring strategic alignment in terms of direction, consistency, coherence, and feedback (Doeleman *et al.*, 2012).

To investigate the degree of *transformational leadership* style we used a selection of questions from the Dutch, validated MLQ-8y of Den Hartog *et al.* (1999). The original questionnaire is the Multifactor Leadership Questionnaire of Bass and Avolio (MLQ-8y; Bass and Avolio, 1989). The respondents rated their own leader's transformational leadership with 15 items scored on a 4-point Likert scale, with answer



categories ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The Cronbach's alpha at T2 was .91.

An exploratory factor analysis showed that transformational leadership and strategic alignment, as measured at T2, formed two distinct constructs (Table 2). Table 3 reports the correlations, means and standard deviations. Their Cronbach's alphas were satisfactory, ranging between .86 and .94. Age and tenure were added as control variables.

Insert Tables 2 and 3

For the qualitative group interviews with the management teams of 34 of the 37 locations a semi-structured interview guide was constructed. It was executed by means of group interviews with 34 management teams of each location, that ranged from 3 (small locations) to 34 managers (largest location). Three locations did not participate because their management team composition had changed too much. The meetings took about two hours. Key questions asked during each group interview dealt with the leadership characteristics catalysing strategic alignment the managers perceived at their location. The group interviews were audio-taped and fully transcribed.

We then also executed a cross-case analysis of two 'early adopter' locations in our sample: herein referred to as 'Location A' and 'Location B'. These two locations were the first to undergo the intervention. In the cross-case analysis we compared, based on their group interviews, the practical leadership experiences and successful methods of management control practice implementation of both locations (Doane and Seward, 2013).

### *Data analysis*

After examining the validity and reliability of our quantitative data, we started analysing the data by examining the agreement among respondents per location.  $R_{WG}$  scores for each of the variables were above 0.91, indicating very strong agreement among the respondents per unit (LeBreton and Senter, 2008, p. 836). We thus aggregated the survey responses ( $n\ T1 = 668$ ;  $n\ T2 = 426$ ) at the unit level ( $N = 37$ ) in order to test the hypotheses via linear regression analyses.

The group interview transcriptions were analysed and coded using the grounded theory methodology (Strauss and Corbin, 1998). The research team coded relevant quotes and examples mentioned during the interviews. After sorting the codes certain leadership conditions were distinguished. In order to examine the link between the resulting leadership conditions and the degree of strategic alignment at each of the 34 locations that participated in the group interviews, we ran a Kendall's  $\tau$ -b (tau-b) test using the coded conditions for each location, as well as their own rating of the three elements through which we measured the degree of management control implementation.

In the cross-case analysis we mapped out how the the leadership conditions and the degree of strategic alignment were related at the two locations. This resulted in two brief case cameos.

## **Results**

### *Hypothesis-testing*

The degree of management control implementation showed a positive significant correlation with the strategic alignment at T2 ( $r = 0.40$ ,  $p < 0.05$ ; see Table 3). Moreover, transformational leadership at T1 had a positive significant correlation with strategic alignment at T1 ( $r = 0.56$ ,  $p < 0.01$ ). The same was found for transformational leadership and strategic alignment at T2 ( $r = 0.45$ ,  $p < 0.01$ ).

The control variables, age and tenure, did not show significant effects in step 1 of the regression analyses taking strategic alignment at T2 as a dependent variable (Table 4). Both in step 2 and 3 we found a positive significant relationship between the degree of management control practices implementation and a unit's strategic alignment at T2 (step 2:  $\beta = 0.35, p < 0.01$ ; step 3:  $\beta = 0.31, p < 0.01$ ). Thus, hypothesis 1 was supported. In step 3, we added the interaction effect of leadership. We found that transformational leadership at T2 positively moderates the effect of the degree of management control practices implementation on strategic alignment at T2 ( $\beta = 0.32, p < 0.01$ ). Hypothesis 2 was thus supported as well.

Insert Table 4

#### *Qualitatively induced conditions for effective strategic alignment*

The analysis of the 34 group interviews led to the identification of leadership conditions for a successful implementation of the constellation of the three management control practices in order to achieve strategic alignment (see table 5). Three main points that related to leadership were found based on the coding of the qualitative data: First of all, respondents stressed the importance of the presence of an *intrinsically motivated management*. They mentioned that the leaders of their locations must act from the perspective of 'wanting to' rather than on 'having to'. In some group interviews it was mentioned that such an intrinsic and contagious motivation may gradually develop as it may take some time before the managers come to appreciate the added value of the implementation of management control practices. At the same time, *leaders must prioritise the implementation*, thereby communicating their vision for change. Both conditions seem to relate to the charisma and inspiration categories of transformational

leadership. A third condition for a successful implementation is *leaders' empowering behaviour*. Respondents especially discussed the importance of taking a bottom-up approach, trust, and taking responsibility play an important role. This condition strongly links to transformational leadership's elements of intellectual stimulation and providing individual attention. Other examples of conditions that were not particularly related to leadership were, among others: being facilitated in the implementation from the start; having concrete targets and actions; using a tool to structure and oversee all the upcoming (strategic) changes; and synchronising management information (i.e., consistency between the plans and generated management information). Table 5 lists them all. This table also reports the outcomes of our quantitative analysis of the coded group interviews. It shows that the three highlighted leadership conditions (intrinsically motivated management, prioritising the implementation, and empowering behaviour) indeed significantly correlated with the adoption of at least two of the three management control practices. This conclusion corroborates the survey-based hypothesis-testing.

Insert Table 5

### *Cross-case analysis*

So how exactly do these leadership conditions for effective strategic alignment come into play during the implementation of a set of management control practices? The cross-case analyses of the two 'early adaptor' locations led to the following insights:

The dominant conditions established in Location A were the presence of intrinsically motivated management, leaders' empowering behaviour, plus concrete targets and actions and interactive controls. Location A also trained its top- and middle

managers. However, during the time of conducting the case study the reliability and accessibility of the IT-enabled management information still required attention.

In terms of Location B, similar to Location A, leaders' prioritising of the implementation of the constellation of management control practices and intrinsically motivated management appeared to be decisive for their successful strategic alignment. In addition, we found that working with an internal help desk offers large advantages in the implementation of the management control practices. And also at Location B the lack of a more structured deployment of IT-enabled management information hampered an effective implementation.

Both cases showed that positive attention on the part of the manager and the input and involvement of staff members in formulating their location's one-page strategic plans were of great importance. Moreover, respondents noted that the horizontal exchange of each location's one-page strategy execution charts among the organisational units was highly informative and useful. For such strategic transparency and participatory strategy formulation to occur leaders must (start or learn to) embrace principles that strongly relate to open strategy.

## **Discussion and conclusion**

This is one of the first papers that provides longitudinal and mixed-methods empirical evidence regarding the relation between the implementation of a multiple-practices management control type intervention and strategic alignment. Our findings show that the degree of transformational leadership of a unit's management moderates the effect between the implementation of management control practices and the unit's strategic alignment. In particular, the intervention involved the co-creation of one-page annual unit plans; periodical management dialogues; and the frequent provision and discussion of IT-enabled visual performance information.

These outcomes add to the open strategy theory that has recently emerged within the strategy-as-practice field, by a description of a new strategy-mapping and -tracking approach based on a constellation of management control practices. The intervention is based on the open strategy principles of participation, inclusiveness, transparency and IT-enabledness, as recently proposed by Whittington *et al.* (2011) and Tavakoli *et al.* (2017) Burgelman *et al.* (2017). Our findings add that such an open strategy approach may also need to be *leader-enabled*. As our qualitative outcomes show, leaders must be actively engaged in their unit's strategy-mapping and execution process, showing their intrinsic motivation through prioritising and empowering their staff members. These leader behaviours align well with the sub dimensions of transformational leadership: charisma, inspiration, intellectual stimulation and providing individual attention. Our hypothesis-testing also pointed to the moderating effect of transformational leadership on the relation between the adoption of open strategy type practices and strategic alignment: In line with many other studies (Green *et al.*, 2013; Syrek *et al.*, 2013; Kearney and Gebert, 2009; Feinberg *et al.*, 2005; Wang *et al.*, 2007; Engelen *et al.*, 2015; Epitropaki *et al.*, 2005; Jansen *et al.*, 2008).

Second, our study shows that incorporating the principles of open strategy may have favourable outcomes for public sector organisations. A combination of having a direction while remaining agile seems to contribute to strategic alignment, not only for start-ups or other for-profit organisations (Collis, 2016), but also for public management organisations operating in increasingly dynamic contexts. As noted by Tavakoli *et al.* (2017), scholars have called for the examination of the open strategy process. Such studies may thus be conducted in a variety of sectors, not restricted to businesses.

### *Limitations and future research*

We also acknowledge some limitations of our study, which suggest avenues for further research. Our one-sector approach may have compromised our study's external validity. When analysing the data, we observed relatively low standard deviations among the respondents at the locations. In studying the outcomes among the locations we observed relatively large variations. This means that these locations indeed differed considerably. Future research may incorporate multiple sectors.

A second limitation of this study is the use of perceptual measures, although we also analysed qualitative data some level of self-report bias may still be in place. Future longitudinal studies ought to also take into account more objective performance indicators, for instance actual goal achievement. Moreover, we advise an even longer time span between the first and second measurement, in order to capture *all* the time-lapsed effects of leadership and participative management control practices on strategic alignment that may take more time to evolve. After all, arriving at an open strategy approach is no small feat, especially in a public sector setting.

Despite these limitations, our research demonstrates that implementing the focal constellation of management control practices is strongly linked to a unit's perceived strategic alignment. Our research helps to develop understanding the transactional needs of transformational leaders to improve their effectiveness. It also demonstrates that the key for improving strategy-as-practice is the periodical management-dialogue facilitated by one-page strategy execution charts and IT-enabled information. Future research could also compare the longitudinal effects of a similar intervention in other types of organisations and countries where the level of societal power distance may vary, as this may explain to some extent why the herein studied intervention worked so well. Moreover, the intervention may be enriched by incorporating more digital tools to

facilitate the process and/or infographics to enhance people's interpretation, understanding and transparency of the strategic goals and progress reaching those, which mitigates the risks of misinformation (Li *et al.*, 2018).

Our study shows that the transformational leadership style of department leaders reinforces the positive relation between the adoption of management control practices and their department's strategic alignment. Rieley (2014) stresses the importance of a leader's facilitation of performance dialogues as they enable employees to understand better their day-to-day contribution to the organisation's strategic goals. Co-creating strategy execution charts helps managers to improve the effectiveness of management dialogues regarding strategy implementation, especially if they support this process with a transformational leadership style. Future studies must thus also take into account an even larger variety of leadership styles used to facilitate not only goal-setting (Latham and Locke, 1990) but also goal-tracking type dialogues.

#### *Practical implications*

We conclude that managers can be enabled to devise better strategic focus and content, in alignment with actual internal or external demands. Our study provides an example of how strategic alignment, and at the same time strategic flexibility, can be achieved in bureaucratic contexts, such as a governmental organisation. Interventions aimed both at strategy-mapping and -execution dialogues plus performance visualisations are potentially effective in achieving department-level strategic alignment. The effectiveness of such interventions will be improved if the leaders involved in those dialogues are selected because they already have or are trained to adopt a transformational leadership style.



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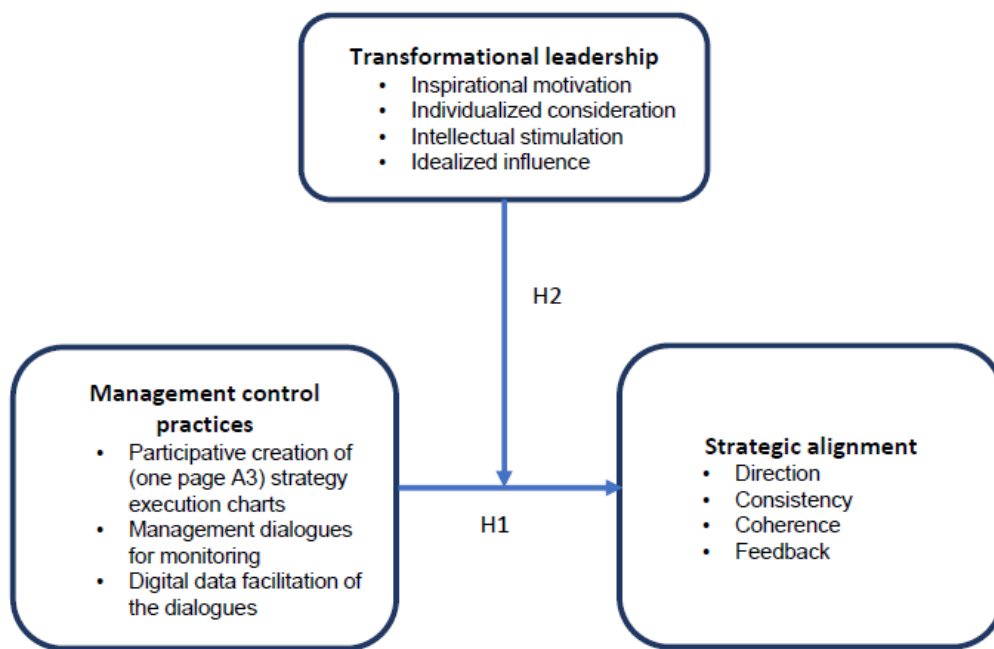
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*Figure 1 – Hypothetical framework*



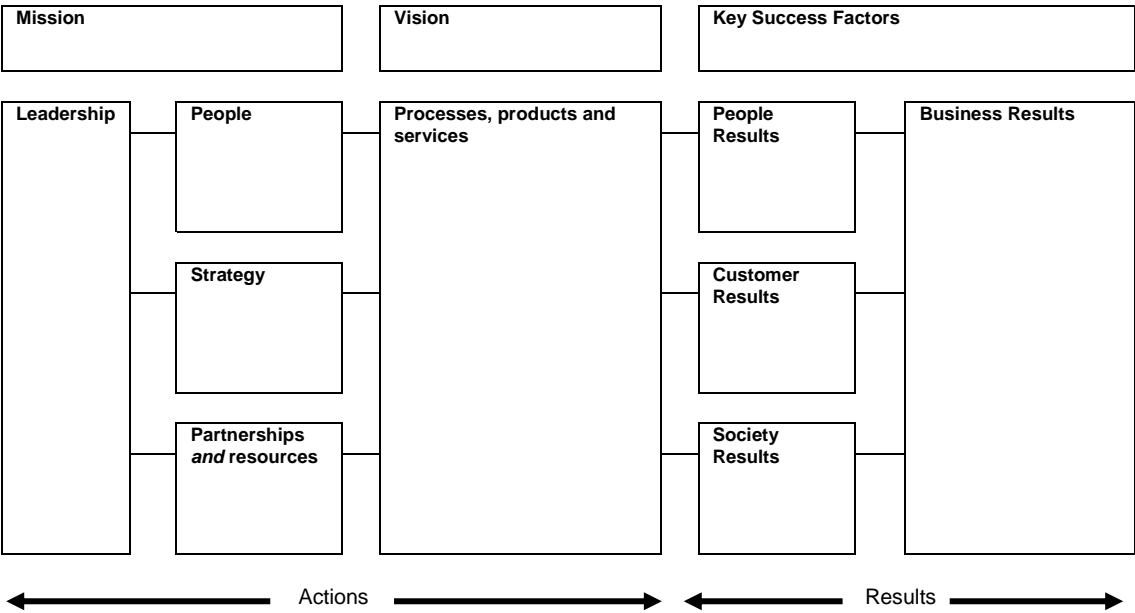


Figure 2 – Example of a Strategy Execution Chart

Table 1.

*Demographic information respondents at T1*

Characteristics	Category	Respondents
Age (years)	20–29 years	5
	30–39 years	100
	40–49 years	303
	50–59 years	199
	> 59 years	4
Years of experience in organisation	< 1 years	30
	1–4 years	66
	5–9 years	91
	> 9 years	424
Years of experience in function	< 1 years	81
	1–4 years	196
	5–9 years	201
	> 9 years	133
Function (total of 754 functions)	Location director	34
	Unit director	85
	Department manager	328
	Staff member	20
	Other	144 <sup>a</sup>

<sup>a</sup> This group includes all staff department managers at each location.

Table 2  
*Exploratory Factor Analysis*

	Factor	
	1	2
My supervisor creates the feeling of proudness on cooperating with him/her	<b>.79</b>	.17
My supervisor listens to issues that are important for me	<b>.76</b>	.07
My supervisor is really interested in developing employees	<b>.76</b>	.10
My supervisor makes me feel enthusiastic about my tasks	<b>.75</b>	.19
My supervisor creates the feeling that we are working together on an important mission / assignment work	<b>.73</b>	.23
In my view, my manager is a symbol of success and achievement	<b>.71</b>	.16
My supervisor is really interested in my well-being	<b>.69</b>	.08
My supervisor stimulates the morale in our team	<b>.68</b>	.18
My supervisor serves as a role model for me	<b>.66</b>	.06
My supervisor inspires me to realize results, more than I could without him/her	<b>.66</b>	.14
My supervisor exudes strength and trust	<b>.66</b>	.14
My supervisor asks me reflective questions aimed at improving my own performance	<b>.64</b>	.11
My supervisor asks me to help him/her with his/her problems	<b>.63</b>	.17
My supervisor stimulates us to prevail team performance above individual performance	<b>.63</b>	.24
My supervisor stimulates me to seek own solutions for my own problems	<b>.49</b>	.13
The strategy of this organisation is clearly communicated to me	.21	<b>.70</b>
The strategy and organisational objectives are regularly communicated	.22	<b>.68</b>
I am aware of the strategy and direction of this organisation	.10	<b>.67</b>
The management philosophy is communicated by management	.20	<b>.65</b>
The strategy and organisational objectives are translated into objectives at every organisational level and are communicated	.18	<b>.61</b>
The organisation measures the performance with regard to specific organisational goals	.06	<b>.60</b>
There is a strong sense of where the organisation is going	.09	<b>.60</b>
The organisation keeps to the formulation of the performance indicators and takes sufficient account of the organisation's strategy	.11	<b>.59</b>
Management has formulated a management philosophy	.12	<b>.56</b>
The work processes of others in the organisation are regular discussed	.12	<b>.53</b>
When improvements are realized, they are applied step by step	.18	<b>.52</b>
The performance indicators emphasize the most important aspects of the strategy of the organisation	-.04	<b>.51</b>
Everyone who works here is, in my opinion, aware of the strategy and direction of the organisation	.02	<b>.50</b>
The coherence in work processes is regularly discussed within the organisation	.23	<b>.46</b>
Performance is measured and rewarded when they contribute to realized goals	.22	<b>.44</b>
It is not clear to me what the goals of the organisation are (R)	.08	<b>.42</b>
Eigenvalue	7.44	5.57
% of Variance	23.99	17.97

Note. Principal component analysis with varimax rotation.

Table 3

*Correlations Among Main Variables, Means, Standard Deviations and Reliabilities*

Variable	<i>M</i>	<i>SD</i>	<i>R<sub>WG</sub></i>	1	2	3	4	5
1. Management control implementation	47.75	27.29						
2. Transformational leadership T1	3.53	.34	.96	.07	<b>.94</b>			
3. Transformational leadership T2	3.55	.24	.96	.04	.10	<b>.91</b>		
4. Strategic alignment T1	2.66	.18	.97	.16	.56**	.19	<b>.86</b>	
5. Strategic alignment T2	2.70	.20	.98	.40*	.21	.45**	.59**	<b>.86</b>

*Note.* Correlations are calculated at unit level ( $N = 37$ ) and the  $R_{WG}$  and Cronbach's alphas (on the diagonal in bold) at the individual level ( $n$  T1 = 668;  $n$  T2 = 426).

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

Table 4  
*Regression Analysis*

Independent variable	Strategic alignment T2		
	Step 1	Step 2	Step 3
Mean age	.20	.18	.13
Mean tenure	-.19	-.13	-.16
Strategic alignment T1		.46**	.43**
Management control implementation		.35**	.31**
Transformational leadership T2		.32*	.36**
Transformational leadership T2 X Management control implementation			.32**
df	2	5	6
$R^2$	.04	.59	.68
$\Delta R^2$		.55	.09
$F$	.73	8.80**	10.43**

*Note.* There was no evidence of multicollinearity; none of the variance inflation factors (VIFs) was >0.95.

$N = 37$ .

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

Table 5

*Kendall's rank-correlation coefficients (Kendall's  $\tau$ -b)) for the rank of degree of implementation of the three management control practices and the presence of the identified conditions in the coded group interviews ( $N = 34$ )*

Conditions	Degree of implementation of one-page strategy execution charts	Degree of implementation of monthly management dialogues	Degree of using synchronized management information
1. Intrinsically motivated management	<b>.249*</b> (.033)	.047 (.366)	<b>.343**</b> (.006)
2. Leaders must prioritize the implementation	<b>.299*</b> (.014)	.154 (.131)	<b>.254*</b> (.032)
Condition 3: Leaders' empowering behaviour	<b>.307*</b> (.012)	<b>.326**</b> (.008)	<b>.254*</b> (.031)
4. Being facilitated in the implementation from the start	<b>.231*</b> (.044)	.110 (.210)	<b>.261*</b> (.028)
Condition 5. Having concrete targets and actions	.093 (.247)	.026 (.426)	<b>.301*</b> (.014)
Condition 6. Leaders' need for more effective interaction	.217 (.055)	.178 (.096)	.060 (.331)
Condition 7. Synchronising management information	<b>.433**</b> (.001)	<b>.273*</b> (.022)	<b>.350**</b> (.005)
Condition 8. Need for focus	.055 (.343)	.160 (.122)	.208 (.065)
Condition 9. Degree of understanding of the A3 approach	.113 (.201)	.082 (.272)	.104 (.222)
Condition 10. Overseeing all the upcoming (strategic) changes	<b>.281*</b> (.020)	<b>.263*</b> (.029)	<b>.237*</b> (.044)

*Note.* The numbers in parentheses indicate the significance level of the correlation (1-tailed test). The bold conditions are significant leadership conditions for the degree of implementation of the management control practices.

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