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DOES OPENING STRATEGY IN ORGANIZATIONS LEAD TO EFFECTIVENESS AND SUCCESS?

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Research in Progress

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Abstract

Despite recent attention in information systems and strategy research considering inclusiveness, transparency, and use of IT tools in strategy formulation (also known as open strategy), the effectiveness of these principles has not been empirically studied in the literature. This research gap is even more prominent when we consider distinct positives and drawbacks of an open strategy approach when synthesising extant literature. This research in progress outlines a macro-level approach to further exploring this highlighted gap in our understanding. Here, research constructs are described and logically positioned within the literature and then, using existing studies from various fields, a number of items to measure each construct are presented. These items are proposed to consider various aspects of open strategy principles (i.e. internal and external, inclusive and transparent). Further, and based on the available literature on openness in strategy, we identify several points to facilitate measuring the open strategy phenomenon. The paper also briefly presents initial findings and an agenda for future steps in relation to data collection and analysis as this research-in-progress moves forward. The paper concludes by remarking intended contributions and potential implications of the study for both practice and research.

Keywords: Open Strategy, Effectiveness, Transparency, Inclusion, Information Technology.

1   Introduction

Open strategy is an IT-driven form of openness in organisations and focuses on how organisations can be more inclusive and transparent in their strategy-making (e.g. formulating strategies, implementing new strategic plans). Through the three principles of inclusiveness, transparency (Whittington et al., 2011), and Information Technology (IT)-enabledness (Tavakoli, et al., 2017) open strategy has been identified as a new mechanism through which organisations can generate new strategic plans. This concept is of interdisciplinary nature and has significantly impacted the Information Systems (IS) field (Amrollahi and Rowlands, 2017; Morton et al., 2019) and complemented the interest of open phenomena in IS in general (Schlagwein and Hu, 2017).

Despite the development of open strategy, the effectiveness of the concept has been either scantly considered in the literature (Kennedy et al., 2016; Luedicke et al., 2017) or has been somewhat ignored as an assumption (Amrollahi and Rowlands, 2016). This is despite some emerging limitations and shortcomings which have also been mentioned in existing studies about using an open approach to strategy. This includes: the required time and cost, losing control over strategy, social comparison and envy, compromising confidentiality, stakeholder disappointment, and destructive behaviour (Birkinshaw, 2017; Sailer et al., 2017). The opportunity to study the impacts of openness is not limited to open strategy. In fact, there are calls to investigate the impacts of openness in both IS (Schlagwein et al., 2017) and innovation domains (Hung and Chou, 2013).

This in-progress study focuses on this important gap in our knowledge relating to open strategy, and a shortcoming which is deserving of more attention to help develop this important area of study. In response to this, we propose the following research question:

RQ. *How does consideration of the key principles of open strategy improve the effectiveness of strategy-making in an organisation?*

In attempting to answer this question, at this preliminary stage, we consider openness as a spectrum of three principles starting from "not open at all" to "fully open" (Dobusch, et al., 2017). We consider that all strategy-making in organisations will fall somewhere in this spectrum, regardless of whether organisations consider their approach to strategy as an exemplar of open strategy or not. Through relating the 'extent of openness' and 'extent of effectiveness' in our research data, we provide some initial findings in this research-in-progress and offer a useful starting point for justifying our research and its intended contribution. In doing so, we argue that utilising a macro-level perspective through analysing (open) strategy in organisations will help broaden the ontological viewpoint and theorising relating to the phenomenon. Thus, a quantitative approach is proposed in this study and one that facilitates a 'generic' answer to the research question rather than focusing on one particular context. This paper proceeds with a review of the theoretical background in organisational strategy and strategy-making, effectiveness, and open strategy. Section three details the research design including our research model, hypotheses, and developed items for each construct in the model. Following this, we propose our strategy for data collection and analysis and explain, briefly, our preliminary and validation results in sections four and five. The paper concludes by outlining our plan for further developing this research and future papers and concludes with expected contributions and potential limitations.

2   Theoretical Background

The question of whether strategy processes are effective, and the various factors for improving the "success" of strategy in organisations, has been a subject of attention for researchers since the emergence of strategic management as a scientific discipline (Boyd, 1991). This section reviews two key streams in the literature for strategy effectiveness (in general) and the body of research on open strategy and its effectiveness (in particular). The theoretical background focuses strongly on IS and related criteria and how these impact strategy effectiveness (vice versa).

2.1 The effectiveness of strategy-making

Extant work which has examined the effectiveness of strategy (particularly focused on the concept of strategic planning) have mainly interrogated the factors impacting said effectiveness and the items measuring success. For example, Ein-Dor and Segev (1978) investigated strategy planning variables which affect the success and failure of management information systems and their use in strategy. These variables included organisational structure, alignment with other plans, planning tools, and plan content. Further, aligned behaviour and implementation were also considered as success factors for strategy by Schaefer and Guenther (2016), whilst Batra et al. (2016) argued that five factors: resources, resistance, functional coverage, external analysis, and internal analysis all impact the effectiveness of strategy in organisations in some way. Other works have investigated the influence of strategy on the use of information tools in organisations and specifically success for IS strategy. For example, three success elements were identified which include: strategic flexibility, strategic direction clarity, and senior management support in guiding the effectiveness of strategy and IS (Awwad et al., 2018). Building on this idea of strategic flexibility, the role of managers (in various organisational roles) is also important, particularly in considering how IT can impact the effectiveness of agile strategies (Morton et al., 2018). In addition to IS, financial performance (Capon, Farley, and Hulbert, 1994) and objectives fulfilments (Ramanujam et al., 1986) have been considered as a measure to evaluate strategy in organizations. Lastly, Grassini and colleagues (2018) assessed strategic planning based on five criteria: strategy orientation, implementation consistency, relational outcome, knowledge diffusion, governance innovation, and these criteria can further guide our understanding of effectiveness in strategy in various types of organisations and across industries and sectors.

2.2 The impact of openness

The long-term consequences of openness in strategy has been explored in previous studies (e.g. Luedicke et al., 2017; Sailer et al., 2017). Such consequences can be divided into four categories. The first is that openness in strategy enhances employee's involvement, creativity, and innovation. Loyalty is also a key consequence of openness, with commitment potentially increasing in organisations. Openness in strategy can also foster the motivation of employees and uncover their tacit knowledge and skills. Lastly, it can also positively affect the image and reputation of an organisation internally and externally, leading to increased trust with other stakeholders (Amrollahi et al., 2014).

In addition, Dobusch and colleagues (2017) conceptualised the potential impacts of open strategy and operationalised these into a framework. These impacts indicate that openness stabilises infrastructure, increases participation, improves quality, increases reach, and encourages innovation. Hautz et al., (2017) express that the outcomes of open strategy revolve around activities of generating, selecting and implementing strategic ideas and weaving these into strategic action and norms.

3 Research Design

The existing body of literature on open strategy is mainly dependent upon a qualitative approach. Whilst this method can help researchers better identify the prominent micro-level practices and behavioural phenomena inherent in strategy-making, it often does so at the detriment of understanding phenomena at the macro-level (organisational outcomes such as effectiveness and strategic 'success') (Kouamé and Langley, 2018). Such context-free dynamics of open strategy are also important to generalise key findings. To address this shortcoming in extant works and considering the research aims of this study, a quantitative method has been adopted. A ten-step procedure suggested for construct measurement and validation in IS and behavioural research has been utilised in this work-in-progress (MacKenzie et al., 2011). The following subsections explain how the study adopts these steps in more detail.

3.1 Developing the Constructs

In order to develop the construct in the current study, we considered the main research question for this study and theoretical background of the related concepts. The strategy literature considers three core

constructs for open strategy which are: (i) inclusion, (ii) transparency, and (iii) IT-enabledness (Whittington et al., 2011; Tavakoli et al., 2017). *Table 1* depicts a short description for each of these constructs.

Constructs	Description
Inclusiveness	Receiving strategy ideas from people outside of the management team.
Transparency	Providing people outside the management team with access to strategy input, process, and outputs.
IT-enabledness	Using IT tools to facilitate participation as an essential element of the strategy process.

Table 1. *Principles of open strategy - based on Whittington et al. (2011) and Tavakoli et al. (2017)*

These principles are widely cited in the general openness literature. For example, Nosek et al. (2015) suggested data and method transparency as a prerequisite for open science. Further, Janssen et al. (2012) suggested transparency, participation and self-empowerment of citizens as the major characteristics of open government initiatives. Considering this background and based on the available literature on open innovation (Chesbrough, 2006), these are suggested by Whittington et al. (2011) as the main principles of openness in strategy (including in the narrower concept of strategic planning).

Although using IT was not initially formalised as a core principle in open strategy, many of the cases outlined by Whittington et al. (2011) were IT-enabled and the use of IT and openness were cited as benefits to managers interchangeably. Future research in the IS domain explicitly considered openness "to be deeply embedded in IT" (Schlagwein et al., 2017). In addition, Tavakoli et al. (2015) suggested IT-enabledness as a new principle without which means the achievement of open strategy is made difficult in contemporary organisations. Bearing in mind the acceptance of the three principles in the literature (Amrollahi and Ghapnchi, 2016; Morton et al., 2016; Hautz et al., 2017), we positioned these as the main constructs to articulate the different dimensions of openness in strategy.

3.2 Scale Development

The second step in developing our research model was to generate *items* to "capture all of the essential aspects of the construct" (MacKenzie et al., 2011, p. 304). To identify the scales for the identified constructs we referred to the theoretical background of open strategy which distinguishes strategy content (input and output) and process (Whittington et al., 2011). Beyond these three dimensions, we also considered implementation and revision in strategy as these have been theorised in more recent studies (Amrollahi and Rowlands, 2018) as part of the process. These four aspects were then applied to the research constructs to develop the scales in our research model.

With regards to participation, open strategy has been focused on those who participated by providing input to the strategy process and those who have access to the developed plan (output) (Dobusch and Kapeller, 2013; Amrollahi and Ghapnchi, 2016). However, participation has been extended to other activities such as: commenting, discussing and editing contributions, and collaboration with others in the practice of open strategy (Kendall et al., 2008; Nketia, 2016; Saile et al., 2017) which are more focused on strategy process. Finally, implementation of strategy has been cited in the recent literature as a strategy phase in which various stakeholders should actively participate (Tavakoli et al., 2015; Amrollahi and Rowlands, 2018). Considering the above-mentioned literature, we concluded that these four aspects can capture the principle of inclusiveness in open strategy-making.

Similar aspects have been considered as scales for transparency and IT-enabledness principles. Regarding transparency, the initial studies of open strategy focus on the importance of transparency of strategic planning process which are traditionally performed secretly (Whittington et al., 2011; Tavakoli et al., 2015). However, opening up the strategy process entails open and transparent access to the approach through which strategic ideas are collected (strategy input) (Matzler et al., 2014) and making decisions on which ideas should be included in formal (and perhaps informal) outputs (Tackx and

Verdin, 2014). Similar to inclusiveness, this construct of strategy openness can be extended to strategy implementation (Amrollahi and Rowlands, 2018) to capture all of the different dimensions of the construct. The literature also demonstrates a similar four aspects for the outlined IT-enabledness dimension. These include collecting strategy ideas and inputs (Morton et al., 2019), facilitating collaboration and refinement of strategy ideas and plan development (process) (Amrollahi and Ghapnchi, 2016), broadcasting strategy outputs (Dobusch and Kapeller, 2013; Jette et al., 2015), and planning and monitoring of strategy implementation (Amrollahi and Rowlands, 2018). We further analysed the open strategy literature to identify three scales for the effectiveness of open strategy (focusing in particular on planning aspects of strategy): (i) organisational effectiveness, (ii) plan effectiveness, and (iii) the efficiency of plan content. These scales are already developed in a theory development study (Amrollahi and Rowlands, 2016). However, in this study, we further extended this initial theory and included factors such as developing a sense of community (Hutter et al., 2017), achieving strategic goals, and improvements in financial performance of an organisation (Boyd, 1991) based on our review of the strategy literature. These are all relevant to the context of this study as they refer to creating a culture of openness in organisations (Remneland-Wikhamn and Wikhamn, 2011). *Table 2* shows the items developed for each construct in this study which includes the focus on strategy effectiveness.

Construct	Theme	Item
Inclusiveness	Input	Who was allowed to participate in submitting strategy inputs?
	Process	Who was allowed to participate in the strategy making process?
	Output	Who was allowed to participate in representing strategy outputs?
	Implementation	Who was allowed to participate in developing strategy implementation and revision plans?
Transparency	Input	To whom were strategy inputs available?
	Process	To whom was the strategy making process available?
	Output	To whom are strategy outputs available?
	Implementation	For whom are strategy implementation and revision plans available?
IT-enabledness	Input	Which tools were used to collect strategy inputs?
	Process	Which tools were used in the strategy formulation process?
	Output	Which tools were used to develop strategy outputs?
	Implementation	Which tools were used in developing strategy implementation and revision plans?
Strategy Effectiveness	Organisational effectiveness	The developed strategic plan helped the organisation to align different stakeholder groups.
	Plan effectiveness	The approach used for strategy helped to save the required time for developing the plan.
	Plan efficiency	The content of developed strategic plan was easy to understand for everyone in the organisation. The developed strategies were achievable at the end of the strategy-making horizon.
	Developing a sense of community	A sense of community was developed as a result of the strategy-making in the organisation.

Construct	Theme	Item
	Business goals achievement	The developed strategic plan helped the organisation to better achieve its strategic goals.
	Improvements in financial performance of the organisation	The developed strategic plan improved the financial performance of the organisation.

Table 2.   Developed items relating to open strategy constructs and strategy effectiveness.

For the items related to strategy effectiveness, we used a seven-item Likert scale ranging from strongly disagree to strongly agree. However, for other constructs we recognised that referring to a simple numeric Likert scale is not sufficient in capturing the 'level of openness' in strategy. For this reason, we further explored the literature to select a non-numeric scale (points) to measure the developed items for openness. The following sections explain how these scales are driven.

3.2.1 Transparency and Inclusiveness

To understand the key points for measuring transparency and inclusiveness, we viewed various groups of stakeholders identified in the literature who participate in strategy-making. In particular, we found a framework which identifies 12 groups of stakeholders (Amrollahi, 2018). However, in order to make it more relevant to the context of the study and simplify this for the purpose of data collection, we amended this into seven groups and these are listed below:

- **Top managers**: those usually central to the process of strategy-making in 'conventional' approaches, and the inclusion of, and transparency to, them as the group of stakeholders who demonstrate the lowest level of openness.

- **Middle managers**: this includes functional and operational managers in various organisational departments. Participation of these stakeholders will assist managers who are mainly involved in their own functional operations and overview of the organisation (Nichol, 1992).

- **Selected employees**: these might also be referred to with terms such as: key personnel, groups of staff, and experts. They are mentioned in the literature as representative groups of staff (rather than all members of staff).

- **Employees**: this outlines that employee involvement is a further step toward strategy openness which is expected to end in incremental awareness about an organisation's strategic direction (Clampitt, DeKoch, and Cashman, 2000) and improved adoption (Acur and Englyst, 2006).

- **Consultants**: there are various strategy consultants selected to form the next level of openness in this study. Consultants are central to facilitating open strategy (Morton and Amrollahi, 2018).

- **External parties (businesses)**: this represents various external groups that might also be included in strategy as the process becomes more open in organisations.

- **Customers**: those selected as the highest level of openness in this paper. This may also include 'members of the society' and communities relevant to public and third-sector organisations.

3.2.2 IT-enabledness

In order to find appropriate points to measure IT-enabledness, we examined different technologies in the literature used for the purpose of strategy formulation. In particular, we looked at the work of Morton and colleagues (2019) which provides a framework for various types of IT tools used in open strategy as represented in the extant literature. For the purpose of the research model and survey development, we changed the nine categories mentioned to five categories specifically for IT-tools. We further considered a hierarchy of tools used in the literature as the value of our measures for IT-enabledness.

However, as this research intends to focus on the extent of openness, we also considered two other categories of non-IT and analogue tools in our framework. The final items are listed below:

- **Analogue tools**: this might include face-to-face meetings and workshops in which papers and documents are utilised - e.g. Paper-based artefacts (Baptista et al., 2017; Morton et al., 2019).

- **IT-enabled workshop tools**: this focuses on meetings and workshops in which IT tools are used to facilitate collaboration and discussion - e.g. PowerPoint (Kaplan, 2011).

- **Communication tools**: those various tools and online channels which inform other stakeholders about strategy - e.g. mailing lists (Saile et al., 2017).

- **Ideation tools**: the various tools and online channels which enable key stakeholders to submit their ideas - e.g. online surveys (Hutter et al., 2017), web-based questionnaires (Saile et al., 2017), competition platforms (Hutter et al., 2017), strategy jams (Luedicke et al., 2017) and crowdsourcing platforms (Whittington et al., 2011).

- **Commenting and evaluation tools**: these are tools and online channels which allow stakeholders to evaluate and comment on the ideas of others (Hutter et al., 2017) and potentially edit them (Saile et al., 2017).

- **Social networks for strategy formulation**: this include tools and online channels which are used to connect key stakeholders and ensure direct interaction and collaboration between them (Dobusch et al., 2017) such as social media platforms (Baptista et al., 2017) and blogging tools (Whittington et al., 2011).

- **Online planning tools**: these formal strategy tools and online channels are important to enabling the ability to develop a more formal strategic plan, and enable stakeholders to develop a plan together (Amrollahi & Rowlands, 2017).

In sum, the above categories are used to conceptualise four different aspects of strategy in organisations and the process of strategy, namely: (i) strategy inputs, (ii) strategy formulation, (iii) strategy outputs (Tavakoli, Schlagwein, & Schoder, 2015), and (iv) strategy implementation and revision (Amrollahi & Rowlands, 2017). Following the above notes on constructs, items, and scales, we proposed the final research model as depicted below in *Figure 1*.
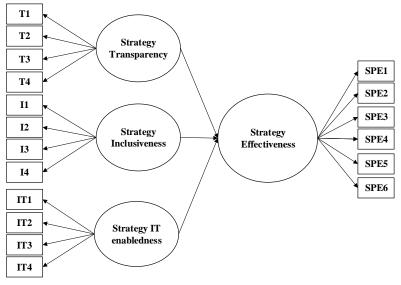

Figure 1.   A graphical representation of the research model.

4   Planned Data Collection and Analysis Strategy

The selected design for future data collection intends to utilise a survey to gather the viewpoint on the phenomenon from strategic planners (managers, consultants, and members of strategic planning teams) in different organisational contexts. This will be conducted by utilising existing networks and contacting

diverse communities of planners and strategy practitioners in strategic management conferences as well as online and offline communities of strategic planning in various countries. In doing this, data collection will further develop this research-in-progress and help us to better understand both aspects of the research model (i.e. the degree of openness and strategy effectiveness) from different perspectives. In order to analyse the collected data, the Partial Least Square (PLS) model will be used. Among different available Structural Equation Modelling (SEM) techniques, PLS is widely used in both information systems (Urbach and Ahlemann, 2010) and strategic management (F. Hair Jr, Sarstedt, Hopkins, and G. Kuppelwieser, 2014) areas. Using this model will help the research to better attract and analyse latent variables and collected data (Chin, 1998).

5   Conclusion and Future Work

In taking this study forward, we intend to validate the research model and scales through asking opinions of experts in both academia and industry. The research will then continue with data collection. Our expectation is to receive at least 100 detailed and rich responses from these sources. Accessing demographic information from research participants may help the study to include and study moderating and mediating factors in the study. This may include: organisation culture, industry type, the length of the strategy process, and the duration of its horizon.

The designed research may have limitations generally applicable to quantitative research. First, the study may suffer from *the informant bias* by referring only to one person and asking them about their experience and evaluation of strategy and effectiveness. As strategy is a multi-perspective practice with long-term impacts on different aspects of the organisation, it would be difficult to ask only one person to evaluate it. Moreover, referring to *subjective measures* is not necessarily the best approach to measure organisational items. In this study, however, we try to refer to top organisational levels to ensure respondents have sufficient insight to strategy and its impacts. In using multi-perspective and detailed items for each of the latent constructs in the model, this will help us to better capture respondents' understanding of each item. Finally, according to the long-term nature of strategy planning, it is possible for our study to survey people who cannot completely recall their experience in strategy practice (also known as *retrospective bias*). To avoid this limitation, we will limit our survey to practitioners' experience relating to the past two years only.

We intend the study to contribute to both theory and practice. In terms of contribution to theory, this study is the first empirical research to focus on the effectiveness of openness in strategy explicitly. For this reason, the results of the study will be beneficial for future work in the area of open strategy to better justify the importance of this growing area of interest in both the strategy and IS fields. Although previous qualitative studies have significantly contributed to the open strategy phenomenon at a micro-level, quantitative studies are still required to evaluate previous practices at the macro-level. Hence, as one of the first quantitative studies in the domain this work-in-progress will also contribute to research by identifying sets of items and scales for measuring the principles of open strategy in future work. The study will have several implications for practice. First of all, understanding the extent that openness can 'improve' strategy in organisations and its more intricate impacts will give practitioners the required knowledge of these principles and their potential operationalisation. Moreover, focusing on moderating and contextual factors can help practitioners understand where openness could be beneficial in their strategy processes more generally. Further, strategy practitioners can use the developed measures for strategy effectiveness to gain a better understanding of various dimensions of more formal strategic plans (regardless of using an open approach). Lastly, this study is expected to contribute to the IS field through measures for openness which can be used in other studies; this research paves the way for future evaluations of the impacts of openness in IS studies.

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