Using Crowdsourcing Tools for Implementing Open Strategy: A Case Study in Education

Research-in-Progress

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Abstract

Following critiques on the conventional methods of strategic planning, and the stream of research on the effect of more participation on the success of strategy process, the new concept of open strategy has been introduced to the literature. Based on the notion of open innovation, this new concept covers two principles of inclusiveness and transparency. The current study introduces an in-progress case study of using the crowdsourcing model to implement the open strategy concept in an Australian university. We use the principles of Design Science Research Methodology (DSRM) for open strategic planning by using the crowdsourcing model and evaluate the method by comparing the quality of resultant plan in delivering its objective. This study explains our approach and a conceptual design for the proposed method as well as our plan for conducting future phases of the research. The introduced process can be used in similar practices of open strategic planning.

Keywords

Strategic planning, Open strategy, Crowdsourcing, Education.

Introduction

Academic work in strategic planning area has been widely criticized in last two decades. More than everyone, Mintzberg (1994a) questioned the traditional viewpoint which differentiated *strategic formulation* and *strategic implementation*. He also introduced eight fallacies and pitfalls of strategic planning which entailed *the fallacy of detachment* in which information barrier between planners and implementers rebates the planning process (Mintzberg 1994b).

The Series of Mintzberg's publications started a new era in strategic planning research in which decentralization of the planning process is a key trend (Wolf and Floyd 2013). The role of *middle managers* has been highlighted in lots of papers in this new era (Jarzabkowski and Balogun 2009; Spee and Jarzabkowski 2011; Vilà and Canales 2008; Wooldridge et al. 2008) and participation of more stakeholders and decentralization of strategic planning has been also studied as a factor which can improve the effectiveness of strategic planning (Aldehayyat and Al Khattab 2012; Kargar 1996; Phillips and Moutinho 1999; Phillips and Moutinho 2000).

Moreover a shift in strategic planning roles can be observed in studies of this new era: Mintzberg (1994c) suggest the role of "creative thinkers, more divergent in their behavior, who seek to open up the strategy making process" for new planners (p.28). Other studies also highlighted the facilitator role for planning departments and top management (Grant 2003; Ocasio and Joseph 2008).

These transformations in viewpoint of the academia about participation and transparency of strategic planning, led to idea of implementing the principles of *open innovation* in strategic planning (Chesbrough and Appleyard 2007) and development of the *open strategy* concept. This concept consists of two broad principles of inclusiveness and transparency which form a continuum of openness for practices of open strategic planning. Advances in Information Technology (IT) and specially set of social technologies which are known as *web 2.0* can play an important role in development of open strategy (Haefliger et al. 2011) and in many cases using these approaches have led to great achievements (Dobusch 2012; Dobusch and Kapeller 2013; Stieger et al. 2012).

Despite the theoretical advancement, current literature lacks a specific method for open strategic planning. The current study, introduces an in-progress case study in which the crowdsourcing model has been used for strategic planning in a university. A general framework for open strategic planning is presented based on design science research methodology and the primary results and our plan for future are discussed.

Related studies

Open strategy

Involving many stakeholders in strategy process has been subject of research for many years. Mitroff et al. (1977) studied the benefits of staff participation in developing a plan for year 2000 (25 year plan) in governmental sector. IBM also started its strategy jam project before 2002 (Bjelland and Wood 2008; D BUSINESS and RESER 2004) in which 50000 of IBM's employees posted about 10000 comments about the future plan of the company.

Despite this early practices, no theoretical research can be observed in the literature until Chesbrough and Appleyard (2007) developed a new concept based on the notion of open innovation which they called *Open Strategy*. They introduced open strategy as a concept which "embraces the benefits of openness as a means of expanding value creation for organizations. It places certain limits on traditional business models when those limits are necessary to foster greater adoption of an innovation approach." (Chesbrough and Appleyard 2007, p.58). It also said to "widen the search for strategy ideas and improve commitment and understanding in strategy implementation" (Whittington et al. 2011, p.535).

According to Whittington et al. (2014), open strategy has come in different ways such as:

1. *Strategy jamming*: The inclusion of larger numbers of internal employees by means of various social media technologies

2. *Inter-organizational strategizing*: The organization of strategy workshops between different organizations for the collaborative exploration of strategic opportunities and threats

3. More transparent *external communication of strategy*: such as through analyst and media strategy presentations and more detailed strategy reporting

4. *Collective, participatory strategy processes of community-based or network-based organizations*

Crowdsourcing

Using the *collective wisdom* of a large crowd inside or outside the firm for performing organizational tasks has always been a beneficial approach for organizations (Pedersen et al. 2013; Ranard et al. 2013) however after the term *Crowdsourcing* introduced first by Howe (2006) as a new sourcing approach, it attracted much more attention in both academy and practice.

Howe (2008) defines crowdsourcing as "the act of taking a task traditionally performed by a designated agent (such as an employee or a contractor) and outsourcing it by making an open call to an undefined but

large group of people" (p.1). Compared to traditional approaches of *out-sourcing* or doing the tasks *in-house*, he believed that this approach provides the organization with broader viewpoints and makes the firm more powerful in solving its problems.

Brabham (2009) also defined crowdsourcing as "a legitimate, complex problem-solving model, more than merely a new format for holding contests and awarding prizes . . . It is a model capable of aggregating talent, leveraging ingenuity while reducing the costs and time formerly needed to solve problems" (p. 252). Pedersen et al. (2013) based on pervious definitions, defined the crowdsourcing from firm viewpoint: "A collaboration model enabled by people-centric web technologies to solve individual, organizational, and societal problems using a dynamically formed crowd of interested people who respond to an open call for participation" (p. 580).

Crowdsourcing approach has been used for solving several diverse problems up to now including: academic innovation (Cooper et al. 2010; Graber and Graber 2013), health (Ranard et al. 2013), and research participation (Behrend et al. 2011). DialogTage is one of the few cases which use the crowdsourcing model for strategic planning. The project was performed in an Austrian automation supplier with 370 employees. Four topics were selected in this project as 'guiding questions': *success factors, future customer solutions, process improvement and innovation.*

The developed solution was a forum-type platform in which employees posted their opinion about the future strategic directions of the firm and others commented on and ranked these ideas. In a two week period of project, 216 employees participated in the project which resulted in 135 threads and 1374 comments. (Stieger et al. 2012)

Methodology

Our research approach is based on guidelines for Design Science Research (DSR) provided by Hevner et al. (2004) and the methodological basis for DSR as suggested by Peffers et al. (2007). Design Science Research Methodology (DSRM) provides a good opportunity for researchers to document the research context (in problem identification and motivation phase) which help practitioners understand the adaptability of the proposed method to the context in which their business works. It also provides detailed information on the solution (in objectives definition phase) and both conceptual and technical design of the IT artefact (in design and development phase) which are certainly requirements of a practical method. Table 1 applies general framework of DSR to the current study.

Steps in DSR	Our approach in current research
Problem recognition	Literature review Upstream plans Managers expression
Suggestion	Collaborative approach which is based on participation of stakeholders
Artefact development	IT artefact Methodology
Evaluation	Qualitative and quantitative
Reflection	Research publications

Table 1 DSR process applied to current study

Case study

An academic group in an Australian university has been selected as the case for the current study. This academic group has more than 400 academic staff which provide service to more than 5000 students in four schools. This project aims to engage academic staff in developing a strategic plan for the university which is aligned with the long-term strategic plan of the university and highlights the opportunities for

enhancing the quality of learning and teaching with regard to four areas of improvement which are highlighted in the university's strategic plan. Following subsections describe our research approach with regard to each phase of DSRM:

Problem identification and motivation

Multiple sources of information lead us to identify the problem in current research: First of all, as explained before, various publications in different contexts emphasized the positive effect of increasing participation on strategic planning effectiveness. Moreover in our primarily discussions with the top and middle managers, they expressed their need for using an IT-enabled solution in long-term planning for their organization and increasing participation in the planning process.

Objective of a solution

The objective of this study is developing a methodology which facilitates participation in strategic planning process through an online collaborative tool and results in many time and cost savings. Moreover the developed artefact provides a basis for study the effect of participation and involvement on effectiveness and adoption of strategic plans.

Design and development

The current study delivers its artefact in form of both IT artefact and the related methodology which is proposed for its development. Our method basically starts with analysis of similar plans in context of our case studies and identification of related content and processes which are subject of attention in similar plans. This will help us to identify what has been explained in similar plans. Then this will be presented to main sponsors of the study. Confirming those content / process and selected stakeholders by top managers will help us to align the plan (in any level) with other strategies or long-term plans in the firm as well as gaining support of top management which is specified in the literature as an important factor which leads in effectiveness of strategic planning (Elbanna 2008; Elbanna 2009; Suklev and Debarliev 2012).

Confirmation of the content and participating stakeholders may lead to develop a general matrix which can be used as a conceptual basis for technical development of the portal. This portal enables authorized stakeholders to submit their ideas about the content which previously has been selected and then these ideas will be refined in the same portal with different authority. Finally top manager approves the final plan and publish it. A conceptual design for the planning system is illustrated in Figure 1.
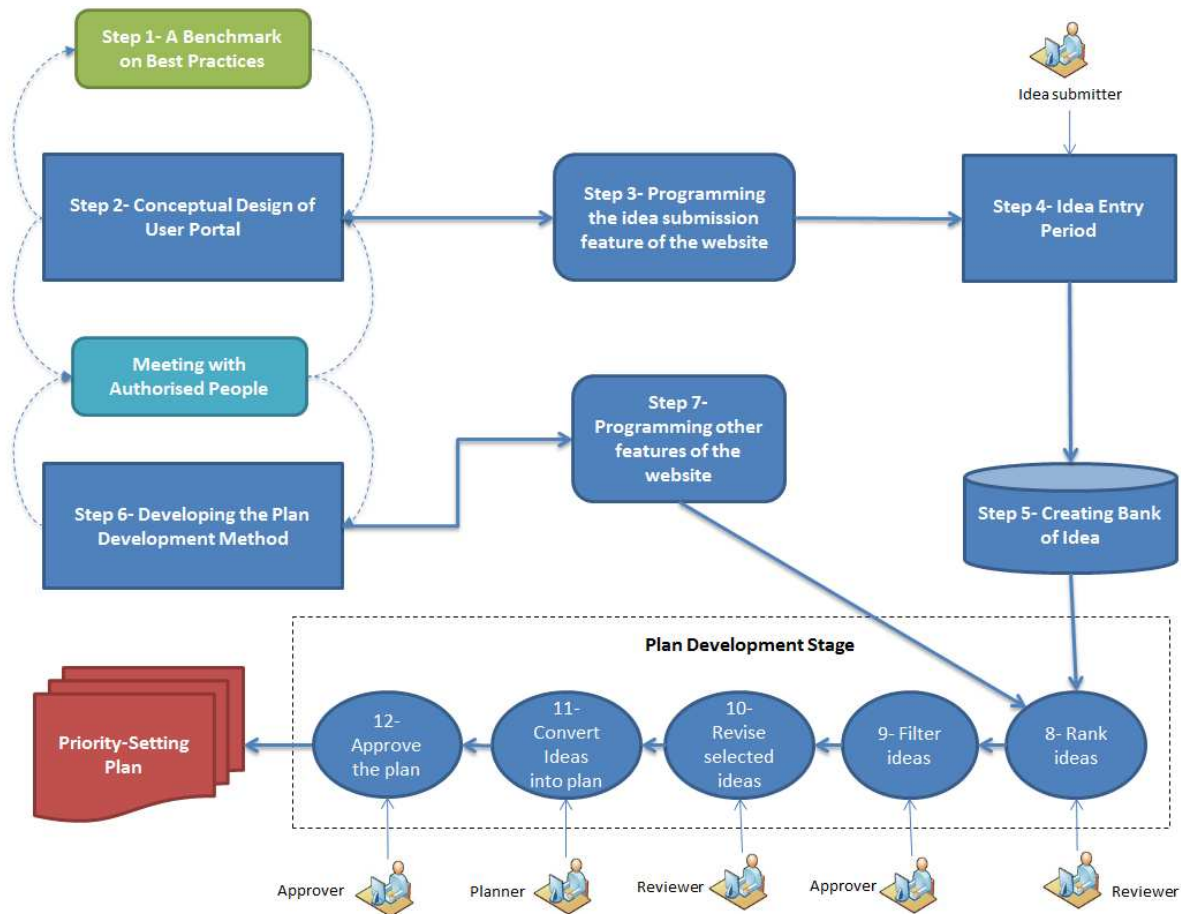
Figure 1 A conceptual design for the planning system

Demonstration

According to Peffers et al. (2007) this "could involve its use in experimentation, simulation, case study, proof, or other appropriate activity. Resources required for the demonstration include effective knowledge of how to use the artefact to solve the problem" (p.13). For the purpose of the current study, academic staff in the university will enter their ideas in to the system and it will form the final plan.

We also use both types of incentives which are previously introduced by Kaufmann et al. (2011) which are *extrinsic motivation* and *intrinisic motivation*. Social interaction (participation in future of the academic group), social payoff (recognition as a participant in final plan) and delayed payoff (chance to enter a prize draw) are incentives of this system.

Evaluation

The purpose of this activity is to observe and measure the fit between the developed artefact and the recognized problem by comparing the results with objectives of the solution (Peffers et al. 2007). In the current study we plan to evaluate the quality of final plan in achievement of goals like engage stakeholders, better adoption, time- and cost-effective, make the plan of a higher standard, and generalizability for other plans. We will use both qualitative and quantitative methods in survey of various stakeholders to measure how effective the plan is in achieving the above mentioned goals.

Communication

The purpose of this phase is to inform relevant management and technology audience about the artefact, its utility and novelty, the rigor of its design, and its effectiveness (Hevner et al. 2004; Peffers et al. 2007). We try to publish the result of our study (in terms of methodology and its evaluation) in different research papers and also provide the access to the IT artefact under free/open source licenses (for technology-oriented audience).

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