Open Strategic Planning in Universities: A Case Study

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Abstract
This paper introduces a case study in which the crowdsourcing model has been used to implement the open strategy concept in an Australian university. This model helps the organization to include more stakeholders and provide the opportunity of a transparent planning process. The paper explains an IT artefact and accompanying conceptual design supporting an internally open strategic planning process of a university. It also explains the result of the case study in accordance to the suitability of the crowdsourcing model for implementation of an open strategy approach, challenges which were faced during the study, and root causes. It concludes with some recommendations for future research and practices.

1. Introduction

The concept of strategic planning was started with Drucker’s “management by objective” (MBO) [1] in 1965 and continued by other theorists like Philip Selznick [2], Kenneth R. Andrews [3], Igor Ansoff [4] and Michael Porter [5, 6]. The concept has later been defined as “an explicit process for determining the firm’s long-range objectives, procedures for generating and evaluating alternative strategies, and a system for monitoring the results of the plan when implemented” [7]. The nature of strategic planning has been changed in the last 30 years [8] and New definitions are more focused on the organizational decisions which form the future of organization. The work of Bryson [9] is an example which defined strategic planning as “a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why it does it”.

However, both academic work and practice in the strategic planning area have been criticized in last two decades. The series of Mintzberg’s publications, which highlighted fallacies and pitfalls of strategic planning [10, 11], started a new era in strategic planning research in which decentralization of the planning process is a key trend [8]. The role of middle managers has been highlighted in many papers in this new era [12-14], and participation of more stakeholders and decentralization of strategic planning has also been studied as a factor which can improve the effectiveness of strategic planning [15-18]. Moreover, a shift in strategic planning roles can be observed in recent studies: Mintzberg [19] suggested the role of “creative thinkers, more divergent in their behavior, who seek to open up the strategy making process” for new planners. Other studies also highlighted the facilitator role for planning departments and top management [20, 21].

These transformations in the viewpoint of academia concerning inclusiveness and transparency of strategic planning, led to the idea of implementing the principles of open innovation in strategic planning [22] and development of the open strategy concept. This concept consists of two broad principles of inclusiveness (of more stakeholders in the planning process) and transparency (of the planning process for stakeholders) which form a continuum of openness for practices of open strategic planning. Advances in Information Technology (IT), and especially a set of social technologies which are known as web 2.0 can play an important role in development of open strategy [23] and in many cases using these approaches has led to great achievements [24-26].

The current research, introduces a case study in an Australian university in which the crowdsourcing model has been used for strategic planning. The organizational structure in universities provides an appropriate basis for implementing the open strategy concept. The objectives of this projects are listed as: (i) Engage stakeholders: attract more people to the planning process and receive more innovative ideas; (ii) Better adoption: as here input from staff form one basis for the planning process, the final outcome should be better adopted by them; (iii) Time- and cost-effective: online planning platform will result in avoidance of strategic meetings and related costs; (iv) Make the plan of a higher standard: use of wider range of ideas and considering best practices (in the planning process).
benchmarking process) will improve the quality of the plan; (v) The ability of the method to be generalized: the practiced methodology and lesson learned could be utilized in similar practices in future.

Considering the above objectives and based on the crowdsourcing model, a strategic planning platform were designed and implemented. The present study uses the case study approach and investigates developed physical artifact, archival data, documents, and the results of direct observations to provide answer for the following research question:

RQ. Which challenges will be faced during the implementation of the open strategy principles?

Answering this question can be beneficial for future practitioners who intend to use a similar approach for strategic planning by providing a detailed and step-by-step process of implementation. It also explains possible challenges which they may face, and some recommendations for avoiding and/or dealing with them. It will also highlight several questions which could be answered by future studies in the open strategy area.

2. Related studies

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 [27, 28]. Howe [29] introduced the crowdsourcing model as: “taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call”.

On the other hand, involving many stakeholders in the strategy process has been subject of research for many years. Mitroff, et al. studied the benefits of staff participation in developing a plan for year 2000 (25 year plan) in governmental sector [30]. IBM also started its strategy jam project before 2002 in which 50000 of IBM’s employees posted about 10’000 comments about the future plan of the company [31, 32].

From July 2009 to July 2010, Wikimedia foundation also started an initiative in which 1000 volunteers in over 50 languages joined to develop a 5 years strategic plan for Wikimedia foundation by using a Wiki tool [33].

Despite the early practices, no theoretical research can be found in the literature until Chesbrough and Appleyard [22] 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.” [22]. It also said to “widen the search for strategy ideas and improve commitment and understanding in strategy implementation” [34]. Table 1 summarizes the practices of inclusion in strategic planning.

<table>
<thead>
<tr>
<th>Project title or context</th>
<th>Reference</th>
<th>Participants</th>
<th>Planning tools</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>[35]</td>
<td>-</td>
<td>Survey</td>
<td>Strategic plan</td>
</tr>
<tr>
<td>The library of San Jose State University</td>
<td>[36]</td>
<td>25 employees</td>
<td>Wiki</td>
<td>Strategic plan</td>
</tr>
<tr>
<td>The DialogeTage Project</td>
<td>[25]</td>
<td>216 employees</td>
<td>Forum</td>
<td>A letter with information on follow-up actions</td>
</tr>
<tr>
<td>Creative Commons Strategic Plan</td>
<td>[37]</td>
<td>CC partners</td>
<td>Survey tools and Wiki</td>
<td>10 years strategic plan</td>
</tr>
</tbody>
</table>

3. Research Design

Single case study research method has been used for conducting the current research. The case study method has been introduced as facilitators of human knowledge [38] which could help researchers to provide description, test theory, or generate theory [39, 40]. The current study follows the guidelines provided by Yin [41] which mentioned components of a research design for case studies.

In the current study, the collaborative strategic planning system, which is the physical artifact according to the above mentioned classification, has been used as the main source of data for analysis. Conducting the research based on design and development of the artifact has also been suggested in the literature as an appropriate approach to increase the organizational capabilities and a proper method for conducting information system research [42, 43]. However, other sources of data including direct observation, archival records, and documentation have been used for data analysis.
The used technique for data analysis is *Explanation Building* which is a type of *Pattern Matching* for exploratory case studies. This method is based on identification of a set of casual links to explain a phenomenon. This process will start with an initial theoretical statement and continues with comparing the findings with that and then revising the first statement [41]. In the current study, this process has been built on a theoretical foundation about possible effects of inclusion and transparency on strategy process. Then the retrieved research data have been refined based on the comparison with theoretical basis. Table 2 maps components of research design for case study to the current research.

Table 2 Mapping the components of research design for case studies with the current study

<table>
<thead>
<tr>
<th>Component of research design</th>
<th>The current study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Study questions</td>
<td>Which challenges will be faced when implementing open strategy principles?</td>
</tr>
<tr>
<td>2 Unit of analysis</td>
<td>Academic unit in Australian university</td>
</tr>
<tr>
<td>3 Criteria for interpreting</td>
<td>Use of explanation building techniques for the data which have been retrieved from</td>
</tr>
<tr>
<td>the findings</td>
<td>physical artefact, direct observation, archival records, and documentation</td>
</tr>
</tbody>
</table>

4. 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 provides service to more than 5000 students in four schools. The organizational structure in universities is usually ‘Professional Bureaucracy’ in which the power is to some extent shared with the operational level and staff are expected to actively participate in the process of decision making [44]. Moreover, a flat organizational structure and well-educated and computer literate employees are variables which can facilitate use of the crowdsourcing approach for strategic planning [25]. For this reason, open strategy is expected to fit with this organizational structure and culture.

The project aimed at engaging academic staff in developing a strategic plan for learning and teaching within the academic group. It has been introduced as an initial step towards collaborative planning and management and allows every academic staff member to participate in the planning process by providing their ideas through an online platform. The plan should also be aligned with the long-term strategic plan of the university which has already been developed and covers nine strategies, four of which are related to the learning and teaching area.

4.1. Problem identification

Multiple sources of information identified the problem in the current research: First of all, as explained before, various publications in different contexts emphasized the positive effect of increasing participation on strategic planning effectiveness. This formed the initial proposition and a theoretical background which helped the research team to convince the managers of the case to participate in the project.

Moreover, in the primarily discussions between the research team and 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. These technologies are expected to facilitate participation of people in various locations (i.e.: university campuses) and lead to time and cost saving for the organization (i.e.: through avoiding time-consuming brainstorming sessions).

4.2. Conceptual design of the planning platform

The current study entails delivery of two different artifacts which are: IT artifact (planning platform) and the related conceptual design which is proposed for its development. In order to develop the conceptual design for the planning platform the result of the review on similar practices which used the open strategy approach, was used. Here the activities which were performed in those practices were particularly subject of attention. The result is depicted in Table 3.

Table 3 Planning activities in some of the open strategy practices

<table>
<thead>
<tr>
<th>Project</th>
<th>Ref.</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>The DialogeTage Project</td>
<td>[25]</td>
<td>Creation of platform software, Introduction of the project, Launch and online time, Evaluation of the project</td>
</tr>
<tr>
<td>-</td>
<td>[35]</td>
<td>Questioning, Analysis of answers, Dialogue, Planning</td>
</tr>
<tr>
<td>Wikimedia strategic plan</td>
<td>[24]</td>
<td>Preparing and staging of the strategy process, Organizing organized publics, Strategizing by organized publics, Selecting,</td>
</tr>
</tbody>
</table>
Based on the synthesis of the activities in similar cases, we identified four general activities which are: pre-planning, idea submission, idea refinement, and plan development. Then based on the specific context of the current study and discussion with the sponsors of the project, those phases have been broken down to a set of activities. A conceptual design for the planning system is illustrated in Figure 1. Details on each set of activities and the results of performing them are described in upcoming sub-sections.

4.3. Pre-planning activities

The pre-planning activities started with an analysis of similar plans in the context of our case and identification of related content and processes which had been the subject of attention in similar plans.

The review of the plans in the same context helped the research team to identify what has been explained in similar plans. This will then be presented to top managers.

In this phase we reviewed learning and teaching plans in 15 Australian universities and extracted information with regards to: the planning process and the content of each plan.

Furthermore, we performed theme analysis on those plans in order to identify which topics have been subject of attention for learning and teaching in the Australian universities. We found 35 major themes (including: course development, communication, and blended learning) in those plans. The results of this benchmarking as well as the conceptual plan for strategic planning were then proposed to the managers for their comments and approval. Confirming those content / process and selected stakeholders by top managers, helped the research to align the plan (in all levels) 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 success factor for strategic planning [45, 46].

Kaufmann, Schulze and Veit [49] introduced two categories of motivators for participation in crowdsourcing activities. In the current study, both categories of intrinsic and extrinsic motivation have been used to increase the motivation of participants for idea submission. The motivation mechanism in the current study covers:

- Social contact (participation in the future of the academic group)
- Social payoff (recognition as a participant in final plan)
- Delayed payoff (chance to enter a prize draw)

Participants had the option to enter their identity information to enter the prize draw and being acknowledged, or enter their idea anonymously. After that they were asked to provide their ideas in accordance to the four identified areas of improvement which were retrieved from the university’s strategic plan (the governing plan of the current learning and teaching plan). These areas of improvement are: (i) Improving student retention; (ii) Improving the student experience (of our courses and/or programs); (iii) Improving teaching quality; (iv) Improving graduate success and graduate outcomes.

Then, participants are asked to enter any idea that they believe will assist reaching this goal (objectives) and how they think the idea could be implemented (strategy). These three questions which have been developed in accordance with the benchmark of best practices in Australian universities, governing plans in the context of study, and discussions with the project’s sponsors, helped the final plan to be aligned with the governing plans, and stay in line with the specified hierarchy of objectives.
4.5. Idea refinement activities

The call for idea submission resulted in 27 unique ideas over the period of 2 months. Figure 2 shows percentage of submitted ideas with regards to the area of improvement they relate to. As could be observed in the figure, almost half of the submitted ideas addressed the student retention area and only few of them addressed the topic of graduate outcomes.

These ideas were first ranked by a number of experts. In this step, at least two experts (who were familiar with the context of study and related limitations) in the university were selected by the dean to rank each idea with regards to the following criteria:

- How strategic is the idea?
- Is the idea applicable in the academic groups in two years (planning horizon)?
- Is it possible to use the idea in all schools and discipline?

These experts were asked to provide their score for each idea in a 1 to 5 Likert scale. These scores helped top managers to better filter the ideas in the next step where the same criteria were used to label the ideas as accept, reject, or revise. Ideas which were marked as revise were sent to another member of the community for revision.

4.6. Plan development activities

Accepted and revised ideas were the input for plan development phase. In this phase of the project a group of strategic planning experts were asked to transform the approved ideas into a final strategic plan. It is worth noting that the structure of the final plan had been previously identified based on the benchmark of similar plans and were approved by the sponsor of the project.

The top component of this plan is the goals component which is based on the above-mentioned areas of improvement (as explained in the previous sections, these areas of improvement are retrieved from the governing strategic plan of the university). The next level which is objectives in the final strategic plan, were developed based on the answers of participants for the first question in the idea submission form (their idea for achieving the specified goal in each area of improvement) and the last level which is strategy is developed based on the
answers to the third question (their recommendation for implementation of the idea).

5. Results

Finally the strategic plan was developed after four months of online and in person discussion with stakeholders and executives. The plan contained strategic directions of the learning and teaching department in next 2 years and contained 15 objectives and 31 strategies for achieving the specified goals (areas of improvement).

In the planning process 27 ideas from four different schools were submitted which showed participation rate of about 13%. Table 4 contrasts the participation rate in the current study with some similar practices. As can be implied from this table, organizational structure is an influential factor to the incremental participation in strategy process.

Table 4 Participation in the current study and similar practices

<table>
<thead>
<tr>
<th>Percentage</th>
<th>13%</th>
<th>0.004%</th>
<th>58%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication tool(s)</td>
<td>Email / Workshops</td>
<td>Advertisement</td>
<td>Workshops</td>
<td>Unknown</td>
</tr>
<tr>
<td>Participants role</td>
<td>Academic staff</td>
<td>Volunteers</td>
<td>Employees</td>
<td>Librarians / Employees / Managers</td>
</tr>
<tr>
<td>Organizational structure</td>
<td>Professional bureaucracy</td>
<td>Virtual network</td>
<td>Functional structure</td>
<td>Functional structure</td>
</tr>
<tr>
<td>Incentive</td>
<td>Social contact / Social payoff / Delayed payoff</td>
<td>Social payoff</td>
<td>Social payoff</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

The first and most important challenge which the current study encountered was the participation rate which was below that anticipated by the research team and similar practices. This challenge could be found in some other case studies in which personnel were asked to participate in the planning process. These studies mentioned reasons such as inadequate self-confidence and shyness of staff [30, 50]. Another study mentioned that people who had not participated “did not feel that they were in a position to contribute to the plan” [51]. The same reasons as well as specific structure of the academic group could cause this problem in this study. These challenges are expected to decrease in future implementations of the open strategy approach in the university.

Another challenge which was encountered during the planning process was inconsistency of idea levels on submissions. According to the pre-developed structure of the plan in the current study and the developed form of idea submission, it was intended to derive objectives (second level of the strategic plan) from the crowd’s response to the first question (what is your idea?) and strategies (third level of the strategic plan) from the crowd’s response the second question (how do you think the idea could be implemented?).

Despite this conceptual design, in practice, many participants entered different levels of strategy in their response to various questions. For example in the final submitted ideas there were general ideas such as: “A comprehensive survey and analysis of the current student experience” and detailed ideas such as: “Ensure that in-school assistance/staff is/are available for administrative, blended learning, and computer related tasks associated with teaching”. There were various instant in which participants entered details on how to implement the idea (strategy in the current classification) as part of their ideas (objectives in the current classification). In the current study this issue was simply resolved by revising the ideas but in future practices, more information and guidelines about these concepts as well as examples for each, may help the participants to better align their ideas with the identified template.

Lack of strategicness in some ideas was another challenge in the planning process. This happened for participants who provided ideas which had less strategic value and could be considered as short-term improvements in the work environment. Ideas like: “upgrading the technological facilities for staff” or “accelerating the improvement in marking system” can be categorized in this group. On the other hand, it should be noted that evaluation of the ideas in this regard is a subjective and context based matter which should happen in the idea ranking phase. Moreover, brief workshops and training materials on the concepts such as: the concept of strategy and long term planning may help future practices to avoid this challenge.

Some ideas were also submitted during the idea submission phase which indicated lack of awareness of the participant about the ongoing practices inside the academic group or the university. Examples were suggesting new systems or technologies which have
already been developed and used. Better information on current (strategic) systems and projects could help the future practices to avoid this challenge and increase the efficiency of such projects.

During the idea submission phase, many ideas were submitted in the planning platform which was related to a specific domain and/or discipline (for instance, improvements on teaching technologies which were applicable to only one specific program). These ideas were also sent for revision in next phases and were transformed to more general topics.

Other than above mentioned challenges which are mainly occurred during the “idea submission” phase, another challenge was faced during the idea ranking and idea filtering phases: It is widely accepted that the main benefit for the open strategy approach is taking more strategic ideas into consideration, on the other hand the disappointment or dissatisfaction of participants have also been reported in similar case studies when their ideas have not been incorporated in the final strategic plan [51-53]. But these facts should not affect the decision of people who rank or filter ideas resulting in a tolerance of low quality ideas which was observed in some instances during the current case study. Table 5 summarizes the challenges in the current study.

Table 5 Challenges of implementing open strategy approach in the current case study

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Possible roots</th>
<th>How to avoid / deal with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower than expected participation rate</td>
<td>Lack of self-confidence in participants</td>
<td>Increase awareness</td>
</tr>
<tr>
<td>Inconsistency of ideas with identified structure</td>
<td>Lack of consistent perception about strategy levels</td>
<td>Guidelines and examples</td>
</tr>
<tr>
<td>Lack of strategicness</td>
<td>Unawareness about the concept of strategy</td>
<td>Workshops and training material</td>
</tr>
<tr>
<td>Lack of awareness on current practices</td>
<td>-</td>
<td>Increase organizational awareness about on-going strategic projects / systems</td>
</tr>
<tr>
<td>Discipline based ideas</td>
<td>-</td>
<td>Revise the ideas and arrive to more general ideas</td>
</tr>
<tr>
<td>Tolerance on ranking and filtering the ideas</td>
<td>Tendency to include more idea</td>
<td>Better criteria for ranking and filtering</td>
</tr>
</tbody>
</table>

6. Discussion

The open strategy concept (like open innovation) has been introduced as a continuum (and not a binary phenomenon) in the literature, and for this reason developing the open strategy in its pure form (with inclusion of every possible stakeholder and complete transparency) could be less achievable for most organizations. Moreover, a number of challenges may hinder the implementation of the open strategy concept. This includes conventional perception about the strategy and the central role of managers in its development.

Increasing the power of crowd in an organization by giving them the strategic planning role, is an approach for improving the involvement of staff in the organization. This case study, however, provides a realistic and pragmatic point of view for implementing an open strategy approach which attempts to consider managerial authority along with participation of stakeholders in the planning process.

This planning process involves a set of primary activities which create a basis for future activities. These activities resulted in agreement about the strategic planning project and its scope in the university and provided better support from various groups of stakeholders.

The project continued with idea submission and refinement by the crowd. The result of this study validates the relevance of a crowdsourcing model for high level activities and decisions in an organization. Moreover, the relatively acceptable response from the crowd indicates that this model is applicable in the context of higher education institutes. However, some areas of consideration are highlighted in the following sections for improved implementation of this approach in future practices.

6.1. Implications for practice

Unlike what is stated by Whittington, Cailluet and Yakis-Douglas [34], the open strategy approach is not expected to destabilize the strategic planners and consultation profession. This approach is even expected to provide opportunities for consultants to shift their services to pre-planning activities (especially platform development) and develop a wider market in small and mid-size enterprises which can start their strategic planning initiatives with the open strategy approach.

Practitioners who plan to use open strategy approach should consider different ways of increasing participation in the planning process. Contrasting the participation rate in this study and
other similar cases could additionally imply the effect of face to face communications inside the firm: Although in all of the cases an online tool have been utilized for strategic planning, the role of communication between stakeholders (which is expected to be less in an academic group with four different campuses) still seems to be important for motivating the participants.

The role of incentives (especially monetary and payoff incentive) have also been questioned in this study: Although three different types of incentive mechanisms have been considered in this case, more than half of the ideas have been submitted anonymously which indicates the unwillingness of the participants to enter the prize draw or even to be considered as participant in the final plan.

Practitioners can also benefit from the challenges which this case study faced and try to avoid and/or deal with them by using the recommended solutions. The main two lessons learned through this case study are the significant role of increasing awareness (through: meetings, workshops, trainings, and online material) and providing better criteria for ranking and filtering strategic ideas. Based on this various areas of improvement have been identified at the end of this project which could be implemented in future practices: Firstly, in order to increase transparency in future practices, the rank ideas and revise ideas activities could be performed by crowd (other than selected crowd). Other than that, increasing the openness of the strategy process may result in increasing participants’ engagement for future practices and encourage more stakeholders (especially those who are less likely to trigger a strategic idea) to participate.

Moreover, communication with potential participants should be modified in future. In the current practice, communication with the potential participants was through part of a general academic workshop and a video message from the project’s sponsor. In future practices, other ways of communication such as exclusive workshops and social networks could be used which can potentially increase the participation in the strategy process. Finally, incentive mechanisms should also be reviewed for the future practices of this approach. The result of the current study indicates that monetary and delayed payoff mechanism is less effective in increasing the motivation for high level tasks like strategic idea submission.

6.2. Implications for research

This paper contributes to the literature on strategic planning and open strategy in two ways: firstly, by providing the first detailed and step-by-step process of open strategic planning, and a detailed study of possible challenges. Second, it contributes to the crowdsourcing literature by suggesting a new application of the model.

In terms of inclusion, about 13% of targeted stakeholders participated in the planning process which is less than expected participation rate for the current study. While the participation rate in strategic planning has been mentioned in the literature as a success factor for strategic planning [15-18] and it has been introduced as a principle for open strategy [34], approaches to improve this factor should be considered in future research as well.

In comparison with the participation rate in similar cases the following points could be implied. First of all, the organizational structure of the firm should be considered in this regard: because there are higher levels of motivation for people in traditional structure to participate in the strategic decision process compared to employees in flat organizations who have already experienced types of participation in the high level decision making (for example participation of academic staff in school committees). Moreover, some of the stakeholders in traditional structure could be persuaded to participate by their managers, which is impossible in flat organizations.

Considering the specific dimensions of open strategic planning, future research should revisit various topics in accordance with this specific context. Future research in open strategy should specifically address the evaluation area and attempt to adopt the literature to specific dimensions of open strategy. To do this, context of planning should be considered for public sector or flat organizational structure in which financial and monetary factors are less effective for planning evaluation and factors like better involvement, satisfaction, and implementation are more highlighted.

The current study could have also implications for future research in the crowdsourcing area. While the basic model in this study was the crowdsourcing model, the participation and motivation trends could be studied in future research. This will perhaps end in identification of a new factor in the crowdsourcing literature which could be “task type” or “strategic level of the task”.

7. Conclusion

A case study on the use of the crowdsourcing model to implement open strategy has been reported in this paper. Crowdsourcing is one of the four online techniques which could be used for open strategy and expected to increase external inclusion of the
planning process [34]. Based on the collected data during implementation of the open strategy approach, this study suggests crowdsourcing approach as an appropriate tool for implementation of transparency and inclusion in the planning process.

8. References


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