

A Novel Model to Improve the Efficiency of the Think Tank Room Approach for Knowledge-Based IT Environments

NavidHashemi Taba, Ahdieh Sadat Khatavakhotan, and Siew Hock Ow

Department of Software Engineering, Faculty of Computer Science and Information Technology, University of Malaya, 50603, Kuala Lumpur, Malaysia

Khotan@siswa.um.edu.my,
{nhtaba, show}@um.edu.my

Abstract. Thinkers in IT management and IT industry with slight difference in opinion have put forward various categories of staff members. Strategists, high ranking, or candidates for key positions use the *Think Tank Room* term to indicate they have preplanned and reliable programs. In reality, if scientists lacking work experience, or strategists unfamiliar with contingencies of the day occupy such think tank rooms, the undoubtedly the disadvantages of the room are much more than its advantages. The Collaborate Think Tank Room (CTTR) model, proposed in this article, compensate the disadvantages of traditional think tank room model by using a collaborative approach. The model has four stages, conducting *Setting*, *Getting Using*, and *Doing* (SGUD). To clarify the advantages of using the suggested model, two real cases of professional fields are explained.

Keywords: IT management, Think Tank Room, IT risk management, Collaborative model, Collaborative criteria, Knowledge-based IT environment.

1 Introduction

Long ago, management approaches considered staff members as similar to other tools and devices [1]. There is no place for the erroneous thought that the staff members of an organization are used to produce the end product or services; or they should be considered as a means to be used more economically, even if it exists in reality [2]. In each organization, the most important department is now human resources [3]. Therefore, individuals are considered as a resource, which should be attended to the way the other resources are. Thinkers in management and industry science like Wren [4], with slight difference in opinion, have put forward various categories of staff members. They are referred to as blue collars in some cases and as white collars in others, as leaders in some, and as followers as others; sometimes as order givers and sometimes as order takers. What is attended to less is that experts in organizations can be more fruitful than managers require or know.

2 Think Tank Room and Lack of the Real Experiences

2.1 Think Tank Room Definition

The term Think Tank Room has for long been used [1]. Hart, and Vromen [5] stated: “The term think tank is a verbal container which accommodates a heterogeneous set of meanings.” Strategists, high ranking, or candidates for key positions use this term to indicate they have preplanned and reliable programs. However, in reality, if scientists lacking work experience, or strategists unfamiliar with contingencies of the day occupy such think tank room rooms, the undoubtedly the disadvantages of the room are much more than its advantages [2]. The collaboration and obtaining the professionals’ real experiences could be assumed as the silver bullet to compensate the weak points of the Think tank room conceptual models.

2.2 Think Tank Room Theoretical Frameworks

Although, the brain storm and collaborative decision making is suggested, analyzed, and emphasized by many of scholars, there is a lack of research study about the think tank room in IT environment field [5]. The real role of IT and the exact position of thinkers in automated systems are not clear and a series of case studies are required to clarify the current as well as future situations of IT environments [7]. Researches show that establishing, developing, and institutionalizing a think tank room using high professional thinkers will change the catastrophic treats to eye-catching opportunities [6].

3 The Collaborative Think Tank Room Model (CTTR)

Concentrating on the expressed opinions by Nemeth [8], Morris et al. [9], and McAlearney et al. [10] shows that the idea of a CTTR model can cover the weak points and decrease the negative effects made by the presence of the experts in any types of decision making process. Figure 1 is An static presentation of the suggested model by this article. The CTTR model has four critical stages (SGUD):

Setting Collaboration Criteria. Setting the criteria for collaboration is the first stage that could be the starting stage of the model [11]. Each problem has common as well as unique specifications. Clarifying the problem characteristics and the constraints is a essential step to set the collaboration criteria. Defining and focusing on the collaboration criteria will avoid wasting the valuable resources such as the time and work force. Determining the communication styles and meeting procedure will satisfy the aforementioned criteria.

Getting Reliable Reports on the Current Situation. The up-to-date integrated information system will help decision makers to make appropriate decisions as well as measure it [12]. Developing an effective knowledge base as well as comprehensive

database including historical data is recommended in this stage. Generating brief comprehensive reports provides an efficient atmosphere and assists the think tank room members in their duties.

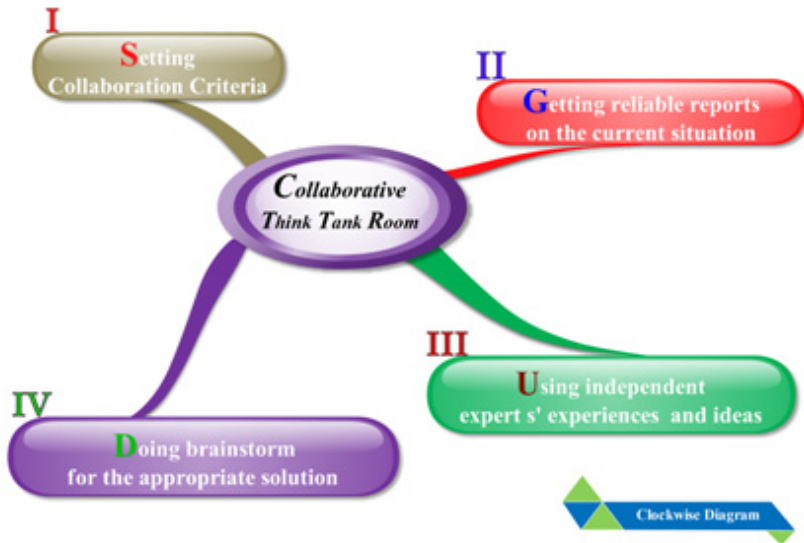


Fig. 1. SGUD stages of CTTR model

Using Independent Experts' Ideas. Exploiting the employed professionals occurs some advantages as well as some disadvantages. Using independent reliable experts as the think tank room members compensates the disadvantages and reduces the risks of dependants’ professionals. Independent professionals will provide insights by sharing the outlook perspectives [13].

Doing Brainstorm for the Appropriate Solution. Gathering various ideas is not sufficient for making correct decision. Brainstorm between think tank room members reveal the benefits and disadvantages of ideas. Leading and controlling the brainstorm meetings is so important issue that could be done through a collaborative digital charter as a creative tool [14].

4 Collaboration Matrix for CTTR Model

CCTR means every expert can cooperate as much as his ability, knowledge, experience and expertise, and benefit from others' as much as he needs. To implement the collaboration model, a matrix of subjects and collaboration will be assist managers. The line of aforementioned matrix is the subjects, which should be

collaborated. The column of the matrix belongs to the knowledge workers, whose knowledge and experience can be used. The entries belong to the role of knowledge worker in that corresponded subject or activity (Table 1).

Table 1. Collaborative sample matrix for CCTR model

SUBJECTS	KNOWLEDGE WORKERS			
	KW ₁	KW ₂	...	KW _n
S ₁	Consulter
S ₂	Resource provider			
...
S _m	Relative experiences

5 Two Professional Cases for Implementing CCRT Model

Physicians and retail loan officers are considered as knowledge workers for a couple of reasons [15]. They are in close contact with the clients and in touch with hard facts due to the nature of their jobs. Strict rules drawn up for loan allocation purposes indicate the rate of clients. Information available to this group is not comparable to that derived from opinion polls and samplings or simulations. The most important reason behind this is that such information is documented. No opinion is acceptable without proof. It means if a loan applicant talks about his family status, financial resources, and provides no proofs; his claim will not be accepted. The case is a little different about physicians. The difference is not in the importance of the matter but in the type of the resources used. McAlearney et al. [10] emphasized that physicians are not only analysts, but also their ability in diagnosis and giving medication completes the treatment process. It means that one of the most important sources for the physicians to help them decide is the remarks made by the patients. Physicians suppose that their patients are the people who have lost their physical or mental health or have referred to them to check their health status; otherwise, they wouldn't have referred to physicians. Therefore, if all tests show that a patient is healthy, yet the patient feels aches, physicians shall not stop treatment. On the other hand, physicians can depend upon their knowledge and ask key questions, or rely on the existing models and diagnose the physical conditions of the patient. The important point is that the patient is not done when treatment process is done; rather a new process has already started. This new process is seeking the reasons of the disease and uprooting it. Suppose a patient afflicted with a hard-to-cure disease refers to a doctor. His remedy shall consist of treatment along with removing its social effects or preventing

the disease to be epidemic. According to CCTR mode, physicians can express their ideas in making decisions related to the development of the hospitals regarding their human resources. In a same way, loan officers can express their opinions on the developments made through years. Loan officers are somehow like doctors. They receive the terms and conditions from the above on one hand and evaluate the conditions of the applicants on the other. If the files available to these two groups are updated in a knowledge-based system, they can be a good back up for the short term and medium term plans. In long term, good information can be extracted through refining information and using deductive scientific methods.

6 Conclusion

The suggested CTTR model is focused on the presence of knowledgeable practitioners. Real updated information, unlike unreal one can back up strategic plans. The first Stage of CTTR model is setting collaboration criteria through arranging an appropriate collaboration charter. Other stages are focused on the using integrated information system and involving professional knowledge workers. Knowledge workers are the most appropriate people to prepare and submit this information. Besides, their inferences are correct because they are experts and in touch with the case. Using CCTR model supports the organizations to make the best decisions through pro-action approach. If knowledge workers get involved in decision-making and planning processes, the inconvenient consequences of decisions could be reduced. Using CCTR plans can be saved from being single angled, dogmatic, and merely theoretical; and change them into multilateral flexible and applicable plans.

References

1. George Jr., C.S.: *The History of Management Thought*. Prentice-Hall, Inc., Englewood Cliffs (1968)
2. Wanna, J.: Independence and Responsiveness – Re-tying the Gordian Knot. *Australian Journal of Public Administration* 67(3), 340–344 (2008), doi:10.1111/j.1467-8500.2008.00591.x
3. Caldwell, C., Truong, D., Linh, P., Tuan, A.: Strategic Human Resource Management as Ethical Stewardship. *Journal of Business Ethics* 98(1), 171–182 (2011), doi:10.1007/s10551-010-0541-y
4. Warren Daniel, A.: *The History of Management Thought*. John Wiley & Sons, Inc. (2005)
5. Hart, P., Vromen, A.: A New Era for Think Tanks in Public Policy? *International Trends, Australian Realities*. *Australian Journal of Public Administration* 67(2), 135–148 (2005), doi:10.1111/j.1467
6. Zou, P.X.W., Redman, S., Windon, S.: Case Studies on Risk and Opportunity at Design Stage of Building Projects in Australia: Focus on Safety. *Architectural Engineering and Design Management* 4(3), 221–238 (2008)
7. Costello, T.: A New Management Framework for IT. *IT Professional Magazine* 12(6), 61–64 (2010)

8. Nemeth, C.J.: *Managing Innovation: When Less Is More*. *California Management Review* 40(1), 59–74 (1997)
9. Morris, S.A., Marshall, T.E., Rainer Jr., R.K.: Impact of user satisfaction and trust on virtual team members. *Information Resources Management Journal* 15(2), 22; *Hospital Topics* 83(2), 11–18 (2005)
10. McAlearney, A., Fisher, D., Heiser, K., Robbins, D., Kelleher, K.: *Developing Effective Physician Leaders: Changing Cultures and Transforming Organizations*. *Hospital Topics* [serial online] 83(2), 11–18 (2005)
11. De Gregorio, F., I-Huei, C.: Do stronger links with practice make perfect? *International Journal of Advertising* 28(3), 555–589 (2009)
12. Bell, M., Farrier, S.: *Measuring Success in e-Learning - A Multi-Dimensional Approach*. *Electronic Journal of e-Learning* 6(2), 99–109 (2008)
13. Dubois, D.: Representation, propagation, and decision issues in risk analysis under incomplete probabilistic information. *Risk Analysis: An Official Publication of the Society For Risk Analysis* 30(3), 361–368 (2010)
14. Brafield, P.: *Brainstorm: software and habitus in digital design*. *Digital Creativity* 21(2), 112–126 (2010), doi:10.1080/14626268.2010.483688
15. Senn, G.F.: Physicians at the CFO's door: what's your response to requests for new technology? *HFM (Healthcare Financial Management)* 64(3), 92–98 (2010)