



## **USING SIX THINKING HATS AS A TOOL FOR LATERAL THINKING IN ORGANIZATIONAL PROBLEM SOLVING**

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### **Abstract:**

*Six thinking hats is recently introduced technique which outlines different thinking styles required by an individual while analysing a given problem in an effective way. The technique correlates different thinking styles used in a systematic problem-solving procedure with different coloured hats. Alternately, by conceptualizing each type of hat, the person focuses on the style of thinking associated with each colour so that the problem can be analysed from different angles and frame of references. This method supports lateral thinking possibilities and new outcomes during problem-solving session so that the optimum solution can be found out. In this paper, we have discussed how to adopt six thinking hats technique in organizational problem-solving process. Each of the six thinking hats may also be conceived to be an independent entity in the thinking process and such attributes contribute to predominant personality trait distinguishable with various categories of persons. Such for instance, are thinking styles associated with typical administrators, religious leaders, politicians, scientists, and managers. The importance of six thinking hats technique in individual and group thinking in solving organizational problems is discussed. The paper also contains the attitudinal relationship in decision making using six thinking hat technique, personality types associated with thinking hats process, and use of this technique in organizational problem solving methods.*

**Index Terms:** Six Thinking Hats Technique, Organizational Decision Making & Managerial Problem Solving

### **1. Introduction:**

Dr. Edward de Bono introduced a simple, but powerful technique called the Six Thinking Hats [1]. The technique introduced different thinking styles from different perspectives that are correlated with a different coloured hat. This parallel thinking approach facilitates the employees and managers in business organizations to analyse a problem from several dimensions. By conceptualizing each type of hat, the manager focuses on the style of thinking associated with each colour. For example, while imagining from the RED hat perspective, a manager will state what he or she feels about a particular situation. While imaging from the YELLOW hat compels the manager to think about the positive aspects of a problem or situation, while the GREEN hat encourages the managers to adopt the creative approach. The Six Thinking Hats encourage even the most pessimistic or negative manager in an organization to think of the positive outcomes of a given situation. By adopting the Six Thinking Hats technique the managers get a new/lateral way of solving a problem which otherwise never opted. Such lateral thinking for organizational problems facilitates to understand the problems quickly, develop solid outcomes generated from different thinking styles, quickly identifying alternative solutions to problems, analysing such solutions by different perceptions using parallel thinking. Six thinking hat technique can be used in conjunction with other well known problem/concept/idea analysis techniques like Focus group method [2- 12], SWOT analysis [13-14], PEST analysis [15], or recently

introduced ABCD analysis Technique [16-17] including ABCD framework [18-28] and ABCD listing [29-35]. Other methods include Collaborative Problem Solving: A Systems Thinking Approach [36], Critical incident technique: a learning intervention for organizational problem solving [37], and Developing ideal system concept and comparing it with practical systems with an intention to improve the practical systems characteristics towards ideal system characteristics [38-46]. In this paper, we have analysed the use of six thinking hats technique in managerial problem solving methods. A comparison is made between six thinking hat technique and traditional methods. The importance of six thinking hats technique in individual and group thinking in solving organizational problems is discussed. The paper also contains the attitudinal relationship in decision making using six thinking hat technique, personality types associated with thinking hats process, and use of this technique in organizational problem solving methods.

## **2. Analysis of Six Thinking Hats in Managerial Problem Solving:**

In taking decisions about important things in life, it does not become easy to come to a final and constructive conclusion. The usual Indian approach of communication and thinking is usually not lateral, instead opposing and does not involve complementarily. Especially when an individual or team decision needs to be taken, it should be collaborative, supportive, 360 degrees thinking, understanding from all angles and then reaching a decision. We find the six hats thinking extremely useful in decision-making process both in personal and professional life. For instance, in the organizational context, a decision to fill a key managerial position may involve various concerns. The question is should we promote an existing person from a lower level position and give time for him to fit to the requirements of functioning or should we keep it open and choose a person from outside who has proven track record but who would invariably demand a much higher salary than what you have to pay the insider. Giving opportunity to the insider will boost the morale of all employees who aspire for their turn for future promotions in the organization. It will also be rewarding for the promotee. You will save much on paying him but loose much until he is trained enough. The danger of wrong decisions or delay is over and above. If you have never been anticipating this to happen and not charted a careful career plan for the employees it is going to be really very tough. Either case, a delay indecision is bound to hit the company drastically, this being a key position.

### **Six Thinking Hats Process:**

Dr. Edward de Bono introduced a simple, but powerful technique called the Six Thinking Hats [1, 51-53]. The technique outlines different thinking styles that are associated with a different coloured hat. By conceptualizing each type of hat, the person focuses on the style of thinking associated with each colour.

A summary of each hat is outlined in figure 1:

**White Neutral Hat:** White Neutral hat whose role is to collect facts, data, stats and concrete information that lay the groundwork and foundations for thinking. In this case, find out the age, educational qualification, experience, and performance of the employee under consideration. Collect information on the salary and benefits he is drawing now and that of the position to which he is considered. Also gather information on the extent of expertise required for the position, the profile of aspirants in the job market in similar industry and their expectations. Look at the organizations interest up to what limit it can afford to pay, merging the responsibility with another position and scrapping it etc.

**Red Intuitive Hat:** Red Intuitive hat will use feelings of intuition to find appropriate solutions to the problems. Analyse the feelings, what it means to the organization, to the employee to be considered, to his superior, and to other employees in the company. Motivation, morale, personal pride, status quo, changing relationships, all required consideration.

**Yellow Optimistic Hat:** This hat's role is to logically present positive plans of action that will help overcome the problems confronting reality. Look at his potentials. How he has been in his jobs throughout, his contribution, ability to grow, capacity to assume responsibility, respect he command, the loyalty he displayed and above all the companies recognition of his potentials by providing an opportunity to him, and how challenging he will take it.

**Black Pessimistic Hat:** The black hat is frowned upon because of its negative approach. However, it is one of the most important hats as it will help you to better understand the pitfalls of your thinking. Look at the cost of probable damages due to the new promotee's inappropriate decisions. Consider the cost and time required to train him. What if he fails to live up to expectations even after a given period of time? What would be the consequence of your own wrong decisions on your professional capacity and organizations trust in you? How would the outsider adjust to the organizations culture? How long he will stay? What is sure that he will perform well.

**Green Creative Hat:** Green Creative hat whose role is to bend the rules, to think outside-the-box and expand the possibilities of the improbable in unique ways. The Green hat will help you to come up with brilliant creative solutions — opening the doors to new opportunities and avenues of thinking. There could be ever so many possibilities open before a creative mind.

**Blue Managerial Hat:** Blue Managerial hat whose primary role is to manage and direct the thinking process, sort out all alternative and probable solutions and apply managerial techniques and wisdom to choose among the best. Nevertheless managerial problem solving is daring and challenging.

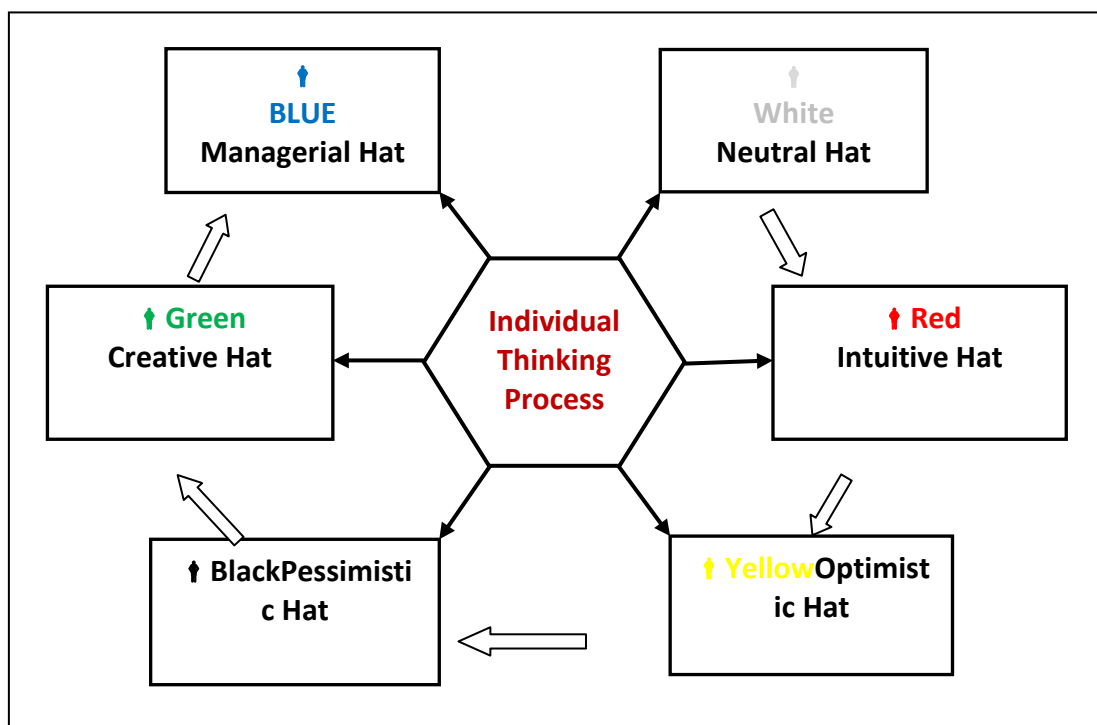


Figure 1: Block diagram connecting six thinking hats to individual thinking process.

This interpretation of the Six Thinking Hat system may be specifically targeted towards the *personal problem solver* who struggles with life's daily challenges or in group decision-making context related to academics, life, career, and business. Six Thinking Hats technique [1], suggests different types of thinking corresponding to six thinking roles for the analyst, associated with hats of six different colours. Through practice and a systematic implementation of this process, one will never feel the need to give up searching for an ideal solution to the problems or circumstances.

### 3. Six Thinking Hats in Group Decision Making:

When we take certain decision about important things in our life, it does not become easy to come to a final and constructive conclusion. If we look into our usual (Indian) approach of communication and thinking, it is usually not lateral but opposing and does not involve co-operation. Especially when an individual or team decision needs to be taken- it should be collaborative, supportive, 360 degree thinking, understanding from all angles and then taking a decision. In a group, members assume different hats of thinking and put forward such kind of views which would be integrated into an effective decision.

The key factor in successfully using the Six Thinking Hats and applying them in practical situations depends on better understanding of the sequence that the hats are used. When considering a specific problem or topic it is best to start with the WHITE hat as this allows all the background information to be presented and documented. Once the problem or topic is fully defined then the RED hat is used to ask participants how they feel about the problem or situation. Participants' feelings are documented. The general tendency for a proportion of people in a meeting, at this stage, is to present the negative aspects of the problem or situation, however, in this process, the next step is to use the YELLOW hat to capture the positive aspects of the problem or situation from all participants. This step is then followed with the BLACK hat when everyone considers the negative aspects of the problem or situation. The BLACK hat is then followed by the GREEN hat where everyone is encouraged to use creative thinking to overcome the negative issues but also develop new alternatives to solving the problems or resolving the situation. The RED hat is used again at this stage to gauge the feelings of participants. Generally, most participants who were previously concerned about the problem or situation would now be feeling more positive after having gone through the process of using the different hats. Finally, it is always appropriate to use the BLUE hat as this allows participants to evaluate whether the process has offered solutions or conclusions. The BLUE hat also provides process control to ensure the right technique or approach was used by participants. If a solution or resolution was not identified then another approach or process would be suggested as more appropriate in solving the problem. Details of the process are given in table 1.

Table 1: Attitudinal relationship in decision making using six thinking hat technique

S.No	Colour of Hats	Basis	Consideration	Attitude	Action
1	White	Quantitative thinking	Use of facts and figures.	Judging	Apprise the entire background situation
2	Red	Humanity based thinking	Absorb feelings in form of comments, criticism and carefulness	Assigning	Unearth negative consequences
3	Yellow	Optimistic thinking	Based on hope, positive and speculative	Defining	Exploring strengths

4	Black	Negative thinking	Based on negative consequences	Redefining	De-limit drawbacks
5	Green	Creative thinking	Based on ideas and lateral thinking	Refining	Considering alternatives
6	Blue	Managerial thinking	Based on planning, organizing, and controlling	Appropriating	Taking appropriate decision

**4. Six Thinking Hats Process:**

Each of the six thinking hats may be conceived to be an independent entity in the thinking process and such attributes contribute to predominant personality trait distinguishable with various categories of persons as given in table 2.

Table 2: Personality types associated with thinking hats

S.No	Colour of Hats	Way of Thinking	Personality Trait	Type of persons
1	White	Neutral Quantitative Thinking	Quantitative thinking using facts & Figure	Administrator/Entrepreneur
2	Red	Humanity thinking,	Humanity based Thinking based on ethics, Values, emotions & feelings	Sage /Religious leaders
3	Yellow	Optimistic or Positive thinking	Optimistic thinking based on hope, positive & speculative	Leader
4	Black	Pessimistic thinking or Negative thinking	Negative thinking based on comments, critics, cautious & careful	Politician
5	Green	Creative and Innovative thinking	Creative thinking based on ideas and lateral thinking	Innovator/Scientist
6	Blue	Managerial thinking	Managerial thinking based on planning, organizing and controlling aspects	Manager/Executive

It follows from the above, the six hats thinking process helps to take decisions that suit best.

**5. Use of Six Thinking Hats in Organizational Problem Solving:**

Every organization has a specific goal and a set of the objective to realize. Using and manipulating various resources, based on the organizational plan, they strive to realize their goal. Organizational managers have the responsibility towards fulfilling organizational objectives by taking the right decision at right time for short term and long term problems. Many techniques have been used in organizations to find optimum solutions like operational research techniques, organizational behavioural theories like theory X and theory Y [54], theory Z [55], and theory A [56-60] etc. The Six Thinking Hats technique can also be used in organizational problem solving [61-65]. This technique can be used by managers to identify and analyse organizational problems. The broad presumptions governing six hats approach in organizational problem solving involves the following:

- ✓ Organizations are complex human initiatives involving functional interrelationship and interdependence.
- ✓ Organizational problems are complex situations involving time in making decisions.
- ✓ The challenge is to make the most effective solution at the shortest possible time.
- ✓ The team approach sometimes is not viable to seek a variety of views owing to peculiar circumstances.
- ✓ Individual managers have to think from different perspectives to gain an understanding of all dimensions of any problem.
- ✓ Objective and extensive data gathering, both qualitative and quantitative is a pre-requisite to efficient decision making (White hat).



- ✓ Due considerations have to be given to the human factor-those affected by and those gained in all decisions (Red hat).
- ✓ Positives should not be overlooked since they are vital to any good decision (Yellow hat).
- ✓ Negative consequences of any decision have to be analysed in full with care and caution (Black hat).
- ✓ Creativity is inevitable for good decisions. This may involve risk taking but gives the advantage of lateral thinking (Green hat).
- ✓ Application of managerial thinking blends the vital elements of planning, organising, and controlling to good solutions (Blue hat).
- ✓ Success of organizational decisions warrant follow up and concurrence in action from team members.
- ✓ Organizational problem solving is daring and challenging for top management.

## **6. Conclusion:**

Individual decision making for a problem is by itself very difficult when it comes to important things. Usually, teams are created as a best means of group decision making. Both these necessitate a concerted effort to systematically analyse the problem, its extent and intensity, and the various alternative solutions to choose from. Many of the stages as depicted in six hats comes to use in organizational problem solving where a manager or team of managers work to arrive at an agreeable and effective decision. Considering that each person may be subject to any one of the personality trait of the six hats exposes the complexities in organizational problem solving. Six Thinking Hat as a system will help the manager to take control of his problems effectively. Through practice and a systematic implementation of six hat thinking process, the manager will never feel the need to give up searching for an ideal solution to his problems or circumstances.

## **7. References:**

1. De Bono, E. (1999) Six Thinking Hats, Back Bay Books, New York
2. Rogers, E. M., (1995). Diffusion of Innovation. The Free Press, NY.
3. Aithal, P. S. and Varambally, K. V. M. (2006). Security Issues in Online Financial Transactions with Special Reference to Banking Industry. In Quality in Service Sector and Managerial Challenges – Allied Publisher Pvt. Ltd. 2006, ISBN: 81-7764-992-2, pp 103- 114.
4. Varambally, K. V. M., & Aithal, P. S. (2009). Technological Management and Mobile Business Services in India – A Futuristic Approach, Proceedings on MIDISA - SAARC Conference on Change and Continuity: Management Prospects and Challenges, RIM, Thimphu, Bhutan, 121-139.
5. Aithal, P. S., & Varambally, K. V. M. (2009). Mobile Business Technology and Business Proliferation of Banks – A futuristic Approach. Amity Business Review – an Indian Journal, 10(1), 9–25.
6. Aithal, P. S., & Shubhrajyotsna Aithal, (2015). A review on Anticipated Breakthrough Technologies of 21st Century. International Journal of Research & Development in Technology and Management Sciences, 21(6), 112–133. DOI: <http://doi.org/10.5281/zenodo.61617>.
7. Aithal, P. S. & Shubhrajyotsna Aithal, (2016). A New Model for Commercialization of Nanotechnology Products and Services. International Journal of Computational Research and Development, 1(1), 84-93. DOI: <http://doi.org/10.5281/zenodo.163536>.

8. Aithal, P. S. & Shubrajyotsna Aithal, (2016). Nanotechnology Innovations and Commercialization – Opportunities, Challenges & Reasons for Delay. *International Journal of Engineering and Manufacturing (IJEM)*, 6(6), 15-25, DOI: 10.5815/ijem.2016.06.02.
9. Aithal, P. S., & Suresh Kumar, P. M. (2016). Theory A for Optimizing Human Productivity, *IRA-International Journal of Management & Social Sciences*, 4(3), 526-535. DOI: <http://dx.doi.org/10.21013/jmss.v4.n3.p2>.
10. Aithal, P. S. & Suresh Kumar, P. M. (2015). Enhancement of Graduate attributes in Higher Education Institutions through Stage Models. *IMPACT: International Journal of Research in Business Management*, 3(3), 121 - 130, DOI: 10.5281/zenodo.61640, I.F. 1.54.
11. Aithal P. S. & Suresh Kumar, P. M. (2015). Black Ocean Strategy - A Probe into a New type of Strategy used for Organizational Success. *GE International Journal of Management Research*, 3(8), 45 - 65. DOI: <http://doi.org/10.5281/zenodo.163423>.
12. Morgan, R. M. and Hunt, S. D. (1994). The commitment-trust theory of relationship marketing', *Journal of Marketing*, 58 (6), 20–38.
13. Lee S. F., and Ko, A. S. O., (2000). Building Balanced Scorecard with SWOT Analysis, and Implementing, Sun Tzu's The Art of Business Management Strategies' on QFD Methodology. *Managerial Auditing Journal*, 15 (1–2), 68–76.
14. Aithal, P. S. and Suresh Kumar P. M., (2015). Applying SWOC Analysis to an institution of Higher Education. *International Journal of Management, IT and Engineering (IJMIE)*, 5(7), 231-247. DOI: <http://doi.org/10.5281/zenodo.163425>.
15. Srdjevic, Z., Bajcetic, R., & Srdjevic, B. (2012). Identifying the criteria set for multicriteria decision making based on SWOT/PESTLE analysis: A case study of reconstructing a water intake structure. *Water resources management*, 26(12), 3379-3393.
16. Aithal, P. S., Suresh Kumar P. M., & Shailashree V.T., (2015). A New ABCD Technique to Analyze Business Models & Concepts. *International Journal of Management, IT and Engineering (IJMIE)*, 5(4), 409-423.
17. Aithal, P. S., (2016). Study on ABCD Analysis Technique for Business Models, Business strategies, Operating Concepts & Business Systems. *International Journal in Management and Social Science*, 4(1), 98-115. DOI: <http://doi.org/10.5281/zenodo.161137>.
18. Aithal, P. S., Shailashree, V. T., & Suresh Kumar, P. M., (2015). Application of ABCD Analysis Model for Black Ocean Strategy. *International Journal of Applied Research (IJAR)*, 1(10), 331 - 337, 2015. DOI: <http://doi.org/10.5281/zenodo.163424>.
19. Aithal, P. S., Shailashree, V. T., & Suresh Kumar P. M. (2016). ABCD analysis of Stage Model in Higher Education. *International Journal of Management, IT and Engineering (IJMIE)*, 6(1), 11-24. DOI: <http://doi.org/10.5281/zenodo.154233>.
20. Aithal, P. S., Shailashree V. T., & Suresh Kumar, P. M. (2016). Analysis of NAAC Accreditation System using ABCD framework. *International Journal of Management, IT and Engineering (IJMIE)*, 6(1), 30 - 44, January 2016. DOI: <http://doi.org/10.5281/zenodo.154272>.
21. Aithal, P. S., Shailashree, V. T., & Suresh Kumar, P. M. (2016). Application of ABCD Analysis Framework on Private University System in India. *International Journal*

- of Management Sciences and Business Research (IJMSBR), 5(4), 159-170. DOI :<http://doi.org/10.5281/zenodo.161111>.
22. Aithal, P. S., Shailashree, V. T., & Suresh Kumar, P. M., (2016). The Study of New National Institutional Ranking System using ABCD Framework. *International Journal of Current Research and Modern Education (IJCRME)*, 1(1), 389 – 402. DOI: <http://doi.org/10.5281/zenodo.161077>.
  23. Aithal, P. S., Shailashree, V. T. & Suresh Kumar, P. M., (2016). Analysis of ABC Model of Annual Research Productivity using ABCD Framework. *International Journal of Current Research and Modern Education (IJCRME)*, 1(1), 846-858. DOI: <http://doi.org/10.5281/zenodo.62022>.
  24. Shubhrajyotsna Aithal, & Aithal, P. S., (2016), ABCD analysis of Dye doped Polymers for Photonic Applications. *IRA-International Journal of Applied Sciences*, 4(3), 358-378. DOI: <http://dx.doi.org/10.21013/jas.v4.n3.p1>.
  25. Reshma, Aithal, P. S., Shailashree, V T, Sridhar Acharya, P. (2015). An Empirical study on working from home – A popular E-business model. *International Journal of Advance and Innovative Research*, 29(2), 12-18.
  26. Aithal, P. S. & Suresh Kumar, P. M. (2016). CCE Approach through ABCD Analysis of ‘Theory A’ on Organizational Performance. *International Journal of Current Research and Modern Education (IJCRME)*, 1(2), 169-185. DOI: <http://dx.doi.org/10.5281/ZENODO.164704>.
  27. Varun Shenoy, & Aithal, P. S., (2016). ABCD Analysis of On-line Campus Placement Model. *IRA-International Journal of Management & Social Sciences*, 5(2), 227-244. DOI: <http://dx.doi.org/10.21013/jmss.v5.n2.p3>.
  28. Sridhar Acharya, P., & Aithal, P. S., (2016). Impact of Green Energy on Global Warming – A Changing Scenario. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 838-842.
  29. Padmanabha Shenoy, & Aithal, P. S. (2016). A Study on History of Paper and possible PaperFree World. *International Journal of Management, IT and Engineering (IJMIE)*, 6(1), 337-355.
  30. Aithal, P. S., (2015). Comparative Study on MBA Programmes in Private & Public Universities- A case study of MBA programme plan of Srinivas University. *International Journal of Management Sciences and Business Research (IJMSBR)*, 4(12), 106-122.
  31. Aithal, P. S., & Shubhrajyotsna Aithal (2016). Impact of On-line Education on Higher Education System. *International Journal of Engineering Research and Modern Education (IJERME)*, 1(1), 225-235.
  32. Aithal, P. S., and Suresh Kumar, P. M., (2016). Analysis of Choice Based Credit System in Higher Education. *International Journal of Engineering Research and Modern Education (IJERME)*, 1(1), 278-284.
  33. Varun Shenoy & Aithal, P. S., Changing Approaches in Campus Placements - A new futuristic Model. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 766 – 776, June 2016.
  34. Aithal, P. S., & Sonia, D. N. (2016). Hitting Two Birds with One Stone: Srinivas University B.Com. Model in Corporate Auditing. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 853-869.
  35. Prithi Rao & Aithal, P. S. (2016). Green Education Concepts & Strategies in Higher Education Model. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 793-802.



36. Paul J. Davis, (2006). Critical incident technique: a learning intervention for organizational problem solving, *Development and Learning in Organizations: An International Journal*, 20(2), 13 – 16.
37. Gasson, S. (2006). Emergence in Organizational Problem-solving: Theories of Social Cognition', Last updated 10/04/2007 12:09:36 Working Paper, retrieved. Available from <http://cci.drexel.edu/faculty/gasson/papers/probsolv.pdf>
38. Aithal, P. S., & Shubhrajyotsna Aithal, (2015). An Innovative Education Model to realize Ideal Education System. *International Journal of Scientific Research and Management (IJSRM)*, 3(3), 2464 – 2469. DOI: <http://doi.org/10.5281/zenodo.61654>.
39. Aithal P. S., (2016). Concept of Ideal Banking and Realization of it using Ubiquitous Banking, *Proceedings of National Conference on Changing Perspectives of Management, IT, and Social Sciences in Contemporary Environment, Manegma 2016, SIMS, Mangalore, India*, 14, 13-24, ISBN 978-93-5265-6523.
40. Aithal, P. S. and Shubhrajyotsna Aithal (2015). Ideal Technology Concept & its Realization Opportunity using Nanotechnology. *International Journal of Application or Innovation in Engineering & Management (IJAIEEM)*, 4(2), 153 – 164.
41. Aithal, P. S. (2016). Review on Various Ideal System Models Used to Improve the Characteristics of Practical Systems. *International Journal of Applied and Advanced Scientific Research*, 1(1), 47-56. DOI: <http://doi.org/10.5281/zenodo.159749>.
42. Aithal, P. S. & Vaikuth Pai, T. (2016). Concept of Ideal Software and its Realization Scenarios. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 826-837. DOI: <http://doi.org/10.5281/zenodo.160908>.
43. Sridhar Acharya, P. and Aithal, P. S. (2016). Concepts of Ideal Electric Energy System for production, distribution and utilization, *International Journal of Management, IT and Engineering (IJMIE)*, 6(1), 367-379. DOI: <http://doi.org/10.5281/zenodo.161143>.
44. Aithal, P. S. (2015). Concept of Ideal Business & Its Realization Using E-Business Model, *International Journal of Science and Research (IJSR)*, 4(3), 1267 – 1274.
45. Aithal, P. S. & Shubhrajyotsna Aithal, (2014). Ideal education system and its realization through online education model using mobile devices, *Proceedings of IISRO Multi-Conference 2014, Bangkok*, pp. 140 - 146, ISBN No. 978-81-927104-33-13.
46. Aithal, P. S. (2015). Mobile Business as an Optimum Model for Ideal Business. *International Journal of Management, IT and Engineering (IJMIE)*, 5(7), 146-159.
47. Aithal, P. S. (2016). Ideal Banking Concept and Characteristics. *International Research Journal of Management, IT and Social Sciences (IRJMIS)*, 3(11), 46-55. DOI: <http://dx.doi.org/10.21744/irjmis.v3i11.311>.
48. Aithal, P. S. (2016). Realization of Ideal Banking Concept using Ubiquitous Banking, *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(2), 119-135. DOI: <http://dx.doi.org/10.5281/ZENODO.164703>.
49. Aithal, P. S. (2016). Smart Library Model for Future Generations, *International Journal of Engineering Research and Modern Education (IJERME)*, 1(1), 693-703. DOI: <http://doi.org/10.5281/zenodo.160904>.

50. Aithal P. S., (2016). The concept of Ideal Strategy & its realization using White Ocean Mixed Strategy. *International Journal of Management Sciences and Business Research (IJMSBR)*, 5(4), 171-179. DOI: <http://doi.org/10.5281/zenodo.161108>.
51. Govind Sharma, Six Hats Thinking, its analysis and practically used example, <http://blog.simplycareer.net/2013/05/six-hats-thinking-its-analysis-and.html>
52. John Kapeleris, Six Thinking Hats, 2010, <http://johnkapeleris.com/blog/?p=418>. Retrieved on 05/12/2016.
53. Adam Sicinski, How to solve problems using six thinking hats, <http://blog.iqmatrix.com/six-thinking-hats>, retrieved on 03/12/2016.
54. McGregor, D. M. (1960). *The human side of enterprise*. New York: McGraw-Hill.
55. Ouchi, W. G., & Price, R. L., (1978). Hierarchies, clans and theory Z: A new perspective on organization development. *Organizational Dynamics*, 7(2), 25-44.
56. Aithal, P. S. & Suresh Kumar, P. M. (2016). Organizational Behaviour in 21<sup>st</sup> Century – Theory A for Managing People for Performance. *IOSR Journal of Business and Management (IOSR-JBM)*, 18(7), 126-134. DOI: <http://doi.org/10.9790/487X-180704126134>.
57. Aithal, P. S. & Suresh Kumar, P. M. (2016). Comparative Analysis of Theory X, Theory Y, Theory Z, and Theory A for Managing People and Performance. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 803-812. DOI: <http://doi.org/10.5281/zenodo.154600>.
58. Aithal, P. S. & Suresh Kumar, P. M. (2016). Theory A for Optimizing Human Productivity, *IRA-International Journal of Management & Social Sciences (ISSN 2455-2267)*, 4(3), 526-535. DOI: <http://dx.doi.org/10.21013/jmss.v4.n3.p2>.
59. Aithal, P. S. (2016). How to Increase Research Productivity in Higher Educational Institutions–SIMS Model. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 447-458. DOI: <http://doi.org/10.5281/zenodo.161037>.
60. Aithal, P. S., (2016). Inspiring through Self-Contribution – An Analysis of How Active the Indian Top Business School Directors in Research & Publications. *International Journal of Engineering Research and Modern Education (IJERME)*, 1(2), 137 – 154. DOI: <http://dx.doi.org/10.5281/ZENODO.164690>.
61. Beheshtifar, M., Kamani-Fard, Fateme-Begom. (2013). Organizational Creativity: A Substantial Factor to Growth. *International Journal of Academic Research in Business and Social Sciences*, 3(3), 98-104.
62. Ian Roffe, (1999). Innovation and creativity in organisations: a review of the implications for training and development, *Journal of European Industrial Training*, 23(4/5), 224 – 241.
63. Tim LeBon & David Arnaud (2001). Towards Wise Decision-Making III: Critical and Creative Thinking. *Practical Philosophy*, 24-32. <http://www.society-for-philosophy-in-practice.org/index.php/publications/pp-journal>.
64. Sheth, Mitez. (2012). The Amazing Concept of Six Thinking Hats. *International Journal of Management Research and Reviews*, 2(3), 449-452.
65. Gary J. Salton, & Charles E. Fuhrmann, (1999). Enhancing and Expanding Six Hat Thinking with Organizational Engineering, *Journal of Organizational practitioner Development Network*, 31(3), 1-12.