Book Reviews:

'Project Quality Management: Why, What and How' by Kenneth H. Rose (2005)

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Ⅰ. Introduction

Quality is clearly one of the key factors of project success (Rose, 2005). PMI (2000) defined that 'Project Quality' is the totality of characteristics of an entity that bear on its ability to satisfy stated or implied needs. That is, the concept focuses that quality is satisfying the needs, both stated and implied. These stated

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and implied needs are the inputs to defining project requirements. A quality management plan is developed at the beginning of the project and a quality check representative is assigned to a project at the beginning of the project. Quality assurance implies that the project and its various phases are continually tracked and evaluated. Different kinds of projects undergo various kinds of evaluation and testing procedures.

This book for review is winner of the 2006 Cleland Award for Literature from Project Management Institute (PMI). Rose, K. H., author of the book, has more than 35 years of hands-on experience in high technology development and project management. He is also an ASQ Certified Quality Manager and past chairman of the National Defense Industrial Association robotics division (Rose, 20015). Thus, the book is excellent and significant in quality management domain. Accordingly, the book has a characteristic of 'usefulness, clarity and concise'.

The book is highly suitable for the quality definition. Also, it summarizes concepts in a model of contemporary quality that provides a unifying and simple framework. Also, the book is categorized by four sections: Quality Foundation, Quality Management, Tools for Managing Project Quality, and Quality in Practice.

Based on these contents, the paper broadly reviewed as two concepts (compare & contrast, opinion). Finally, this study proposed the subjective evaluation on the book.

Ⅱ. Compare and Contrast

This chapter compares and contrasts what known in other ways through various sources on the book.

2.1 Section I . Quality Foundation

Section I of the book proposes quality definition and paradigms focused on project. First of all, the book proposes the question "What is quality?" and gives a time to think for a few moments. the point is different characteristic from other books. Most of book shows just the definition on first page. Actually, quality definition is very various and a little complicated. Also, the definition can be varied by time and by sources. For example, PMI (2004) defines quality as 'the degree to which a set of inherence characteristics fulfill requirement.' However, the book explains the quality definition objectively and expansively.

Chapter 1 shows that quality is part of a quadruple constraint consisting of time, cost, scope, and quality. Author proposes, however, that this approach is not right thing. That is, quality concept may be closely associated with scope (Rose, 2005: p.6). Chapter 1 also proposes the concept of cost and benefit separately about quality.

Chapter 2 explains the evolution of quality and its current application focused on project management. Also, quality and responsibility is apt for contemporary concept of quality. If 'Who is responsible for quality' of this part can be explained in detail, the 'Supply chain management (SCM)' concept need to be adopted in chapter. Dr. Feigenbaum first introduced the concept that all the people in an

organization share a responsibility for quality - Total Quality Control (TQC) - in his classic book, Total Quality Control (New York: McGrawHill Book Company, 1983). Thus, it may be better that Feigenbaum's TQC concept also should be inserted in chapter 3 of the book.

2.2 Section Ⅱ. Quality Management

Section Ⅱ proposes that there are following three processes which are part of project quality Management: Quality Planning, Quality Assurance, Quality Control.

PMBOK (2004) states that quality management processes include all the activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken. The needs focus on customers of project and it also includes identifying customers and prioritizing customers. So, chapter 4 explains the part with case study very well. However, other books (for example, Foster, 2007) introduced AHP and QFD technique for getting the prioritization and requirements of customer instead of explanation of L-Shaped Matrix and requirement prioritization. Actually, contents of L-Shaped Matrix and requirement prioritization are identical to thing of AHP and QFD.

The Analytical Hierarchy Process (AHP) is a decision - making method developed by Saaty (1981). This can be defined as a hierarchical analysis methodology supporting reasonable decision-making by simplifying a problem. It is simple and practical in dealing with the problems that have both qualitative and quantitative traits. Lately, AHP is identified and used as quality estimation method. Choi et al. (2009) paper evaluates the feasibility of outsourcing testing and inspection activities in construction work, based on a survey of interested

parties and an evaluation using AHP method with experts on quality control.

Quality Function Deployment (QFD) method also can be applied to this quality. QFD is a comprehensive quality design method that seeks out spoken and unspoken customer needs. Understanding the 'true' needs of customers requires is very essential factor to organization and team performance (Foster, 2012: p.141).

In chapter 5, quality audit is very important step in quality assurance (QA) but, is insufficiency in this chapter. Thus, Arter (2002)'s book ('Quality Audits for Improved Performance') is helpful to get a detailed concept. the book proposes that an audits schedule guides the audit program through the year and it helps to assure that all areas are covered. Also, quality improvement (QI) can be evaluated and varied by regions (American way, European way, Japanese way etc) in international quality perspectives. This point has been explained in foster's book (2007) in comparison with the book.

2.3 SectionⅢ. Quality Tools for Managing Project Quality

Section Ⅲ proposes the tools for collecting data, understanding data, understanding processes, analyzing processes, and solving problems in project management.

The dialogue in chapter 7 is apt for explaining the tools. Especially, the dialogue for Pareto chart is appropriate to this case. Projects are consisted of many sub-activities. Thus, project manager should understand the process and performance of each step of project. In the stage of project planning, project managers must identify sequence of process, all of sub-activities and have to decide time limit and quality objectives. There are many tools for monitoring the

performance and scheduling, but the chapter 8 mentioned about understanding the project process and monitoring quality index. Also, flow chart is common in software programming, useful to understand the sequence of project. Run chart and control chart are applicable to IT project as well as manufacturing industry, and give quick understanding the output as times go on. But in huge project, many activities and many outcomes occurred at the same time.

Run chart and control chart become complex and may not comprehensible. Sometimes it is necessary to split into several chart according main fields of the project step. A pillar diagram in chapter 9 is a useful quality tool for identifying root causes to multiple results.

Chapter 10 shows the quality tools for solving problems. In addition to these tools, Delphi technique may be recommended. The Delphi method is an exercise in group communication among a panel of geographically dispersed experts. The technique allows experts to deal systematically with a complex problem or task (Dajani et al., 1979). It comprises a series of questionnaires sent either by mail or via computerized systems, to a pre-selected group of experts. This technique also can be very helpful for project manager to solve the project problems.

Chapter11 proposes two tools (compliance matrix, peer review) about project practices. If so, this chapter should show the definition of project practices. PMBOK (2004) defines that practices is 'A specific type of professional or management activity that contributes to the execution of a process and that may employ one or more techniques and tools.'

2.4 SectionⅣ. Quality in Practice

In this section, author presents the practice exercise by case study. But the

book shows just the process and simple explanation. If it makes up for this case, the practice may be supplemented with actual data of this case. This will be of help to understand this chapter.

Ⅲ. Opinion

On the whole, the book gives readers a brief and inclusive content with an easily approachable way. Accordingly, the book can be a guideline for research topic.

3.1 Section Ⅰ. Quality Foundation

Overall, the book provides readers a definite quality management process with a proper quality tools that can be applied immediately to any project.

In chapter 2, introduction section of 'Wheel of Quality' is useful to understand the quality concept that codified in a single graphic image as seen in figure 2.1 (Rose, 2005: p.19). The figure illustrates the different elements of a quality system and relationships among the process and elements.

3.2 Section Ⅱ. Quality Management

Actually, there are many books, tools, and websites related to quality management. However, the book is more general quality management rather than quality management focused on project management. Also, although

volume of the book is limited, contents are a little insufficient in comparison with other books.

And quality in manufacturing domain is a much mentioned but little employed component of service domain. Thus, 'service quality management' chapter may be needed in the book.

Chapter 4 properly provides the L-shaped matrix, which can be used to prioritize customers and requirements. The project quality management by the book provides project managers a specific quality management process. The user-friendly guide presents tools and techniques that implement the general methods defined in PMBOK published by PMI (2004), and augment those methods with more detailed, hands-on procedures that have been proven through actual practice. Also, it gives readers an immediate hands-on capability to improve project implementation and customer satisfaction in any project domain and will help maintain cost and schedule constraints to ensure a quality project.

3.3 SectionⅢ. Quality Tools for Managing Project Quality

In chapter 7, the book points out that the number of defects or errors is not as important as the cost or the effect of the error (Rose, 20015: p. 90). In addition to this opinion, Pareto diagram with including the costs should be considered for more exact and detailed analysis. That is, general Pareto diagram without cost consideration is limited to counts. But if managers are interested in cost rather than in just count, the count data can be converted to cost data. Accordingly, manager can focus on correcting the problems associated with the greatest costs (Zimmerman & Icenogle, 2002). Author properly provides a case study in the

appendix to use the tools in this section. Also, most of figures, charts and graphs can enable readers to understand the content.

In chapter 9, the book shows that the pillar diagram as not seen in other books may be meaningful tool for analyzing quality processes.

3.4 SectionⅣ. Quality in Practice

Last section includes finally a practical exercise relevant to actual project. This section will enable readers to get an experience using the tools and techniques of the project quality management process before actually applying them to their own project work. Also, the book can be used as a training material for students, novice but it is not apt for veteran project managers.

Ⅳ. Conclusions: Overall Evaluation

The book would be comprised of a systematic content. If the book can be evaluated quantitatively how each section of the book is written systematically and expansively, the following evaluation (Table 1) may be used. The evaluation section is based on the model by Pyrczak (2008).

Actually, this evaluation table is focused on paper or article but can be adopted as the evaluation method to the book. First, each item is evaluated by all sections based on personally subjective viewpoint. The score of the table 1 uses a scale from 1 (being very unsatisfactory) to 5 (being very satisfactory).

Table 1. Evaluation table of the book (Source: Pyrczak's model, p.156)

	5	4	3	2	1
1. In your judgment, has this section selected an important content?					
2. Was this section reflective?					
3. Is this section cohesive?					
4. Does this section extend the boundaries of the knowledge on a topic, especially for understanding relevant theories?					
5. Is this section likely to inspire additional content?					
6. Is this section likely to help in decision making?					
7. Would you be proud to have your name on this book as co-author?					

To bring all the evaluations by each section, the chart shown in the following figure presents the percentage (%) of scoring across the sections of Pyrczak's model that are relevant for the book. According to this chart (Figure 1), it shows that section Ⅳ (45%) of the book may be improved or complementary at practical area.

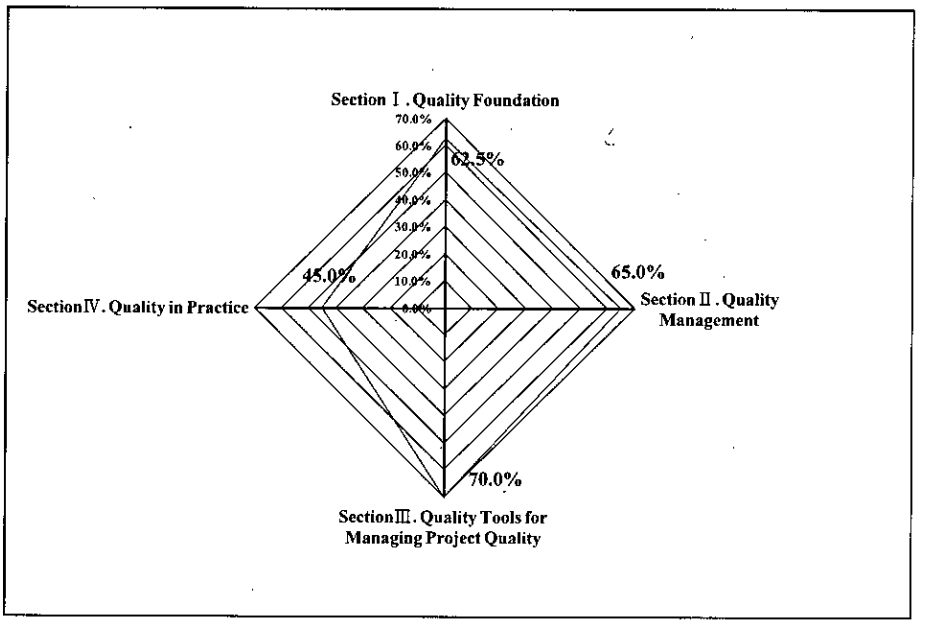

Figure 1. Evaluation scores (ratios) by each section (Source: Pyrczak, p.156)

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