A Set of Simplified Assessment Criteria for the Malcolm Baldrige Model

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Abstract

This research deals with the determination of 25 key assessment questions(KAQ) from the Baldrige criteria. It first investigates the performance of all the examination questions through real world applications. The 25 KAQs are then selected based the level of correlation between each of the questions and the overall assessment results. A set of field data are used for validating the key assessment questions in a statistical framework.

1. Introduction

The Baldrige model is becoming an important assessment tool in many Korean industries. The well-known global standard helps the practitioners isolate key strengths and weaknesses of their organizational effort for enhancing quality of management. The Baldrige model, which consists of seven categories and a number of examination questions, is however difficult to apply to self assessment situations due to both the number of examination questions and their difficulty in concepts. The practitioners need to understand the whole set of questions and examine their performance levels through a series of interviews. The comprehensive assessment is therefore known to be undertaking and time consuming when applied in reality [1, 2].

The primary purposes of this research are first to simplify the criteria in order to improve applicability and then to verify their performances in the real world situations. The criteria are reduced to a set of 25 key assessment questions (KAQ) based on a real case study.

2. The Baldrige Criteria

The Baldrige model is based upon performance excellence criteria created through a pub-

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lic-private partnership. The criteria are designed to permit a diagnosis of any company's overall performance management system. In assessing these criteria, an organization is expected to provide information and data in its management processes and results regarding the following categories [3, 4].

2.1 Leadership

It examines senior leaders' leadership in creating and sustaining values, company directions, performance expectations, customer focus, and a leadership system that promotes performance excellence. Also examined is how the values and expectations are integrated into the company's leadership system, including how the company continuously learns and improves, and addresses its societal responsibilities and community.

2.2 Strategic Planning

It examines how the company sets strategic directions, and how it determines key action plans. Also examined is how the plans are translated into an effective performance management system.

2.3 Customer and Market Focus

It examines how the company determines requirements and expectations of customers and markets. Also examined is how the company enhances relationships with customers and determines their satisfaction.

2.4 Information and Analysis

It examines the management and effectiveness of the use of data and information to support key company processes and the company's performance management system.

2.5 Human Resource Development and Management

It examines how the work force is enabled to develop and utilize its full potential, aligned with the company's objectives. Also examined are the company's efforts to build and maintain an environment conducive to performance excellence, full participation, and personal and organizational growth.

2.6 Process Management

It examines the key aspects of process management, including customer focused design, product and service delivery processes, support processes, and supplier and partnering processes involving all work units.

2.7 Business Results

It examines the company's performance and improvement in key business areas such as customer satisfaction, financial and marketplace performance, human resource, supplier and partner performance, and operational performance.

3. The 25 KAQs and Their Validity

Lately, a Korean telecommunication company has developed MQMAS (MQ Management assessment System) to help their managers assess the Baldrige criteria. It consists of 83 self-assessment questions which are classified into seven Baldrige categories. MQMAS was used for internal diagnoses of the company's 56 site offices. The self assessments were conducted by a group of 30 trained self-assessors who are key general managers of the company.

In the assessment process, a couple of limitations have been observed. One is related to the rather large number of questions. It's hard for the self-assessors to understand all of the questions, especially for self-assessors do have diverse educational backgrounds. The other is related to the totality of knowledge. The coverage of the Baldrige criteria is so broad that only a few expertises encompass the main managerial issues included in the criteria. From the field observations, it has been clear that simplifying the criteria is a critical issue for enhancing the applicability of the Baldrige criteria.

3.1 Elicitation of 25 Key Assessment Questions

The ideal way to simplify the criteria is to combine interrelated questions into a fewer number of questions. This approach, however, does not solve the initial limitation. As more questions merge, the scope of each of the questions becomes more indistinct for actual assessment practices. In this research, we find out a set of representative questions for the criteria via statistical tests. The selection process of the key questions follows three steps. In the first step, the scores of the 83 questions are examined. In the second step, the correlation between each of the questions and the score of its category is computed. In the final step, the three to four questions with highest correlation coefficients are selected to form a final 25 key questions.

3.2 Validation of the 25 Key Assessment Questions

In order to validate the 25 questions, a series of statistical tests were conducted. For each category, the correlation between the sum of the scores of key questions and the actual sum of the all the questions has been analyzed.

H_0 : $\rho = 0$ (KAQs' can represent the criteria of the category)

H_1 : $\rho \neq 0$ (KAQs' can not represent the criteria of the category)

The statistical results are included in Table 1. It has turned out that the statistical tests support all the alternative statistical hypotheses, which state that the 25 questions seem effective in representing the entire questions.

Table 1. t-Test Results Regarding Correlation

Category	Leadership	Strategy	Customer	Information	HR	Process	Results
t-statistics	27.479	29.0814	14.7035	18.0026	16.226	18.2744	11.9137
Correlation	0.9643	0.9679	0.8896	0.9222	0.9067	0.9242	0.8447

3.3 The Final 25 Assessment Questions

The 25 questions can be used for self-assessment for any organization. In an effort to minimize the effort needed in the assessment, they have been selected as a form of single questions. This has made the questions maintain their simplicity. The final 25 key assessment questions are summarized in Table 2.

Table 2. The Final 25 Assessment Questions

Category	Items	Assessment Questions
Leadership	1. Direction	HOW do SENIOR LEADERS deploy your organization's VISION and VALUES through your LEADERSHIP SYSTEM?
	2. Performance Review	HOW do you evaluate organizational PERFORMANCE and competency?
	3. Feedback	HOW do SENIOR LEADERS use these PERFORMANCE reviews to improve both their personal leadership EFFECTIVENESS and that of your board and LEADERSHIP SYSTEM, as appropriate?
	4. Social Responsibility	What are your KEY compliance PROCESSES, MEASURES, and GOALS for achieving and surpassing regulatory and legal requirements, as appropriate?
Strategy	5. Development	HOW does your organization conduct its strategic planning?
	6. Deployment	HOW do you collect and analyze relevant data and information pertaining to these factors as part of your strategic planning PROCESS?
	7. Performance Projections	What are your PERFORMANCE PROJECTIONS for both your short- and longer-term planning time horizons?
Customer	8. Customer Information	HOW do you use this information and feedback to become more CUSTOMER-focused and to better satisfy CUSTOMER needs and desires?
	9. Customer Relationship	HOW do you manage CUSTOMER complaints?
	10. CSI	HOW do you determine CUSTOMER satisfaction, dissatisfaction, and loyalty?
	11. Customer Satisfaction	HOW do you obtain and use information on your CUSTOMERS' satisfaction relative to their satisfaction with your competitors, other organizations providing similar products or services, and/or industry BENCHMARKS?

Category	Items	Assessment Questions
Information	12. Performance Measures	HOW do you select, collect, align, and integrate data and information for tracking daily operations and for tracking overall organizational PERFORMANCE?
	13. Performance Analysis	HOW do you use these reviews to assess organizational success, competitive PERFORMANCE, and progress relative to STRATEGIC OBJECTIVES and ACTION PLANS?
	14. Info System	HOW do you make them accessible to EMPLOYEES, suppliers, PARTNERS, collaborators, and CUSTOMERS, as appropriate?
HR	15. Work System	HOW do you organize and manage work and jobs, including skills, to promote cooperation, initiative, EMPOWERMENT, INNOVATION, and your organizational culture?
	16. Education/ Training	HOW do you evaluate the EFFECTIVENESS of education and training, taking into account individual and organizational PERFORMANCE?
	17. Motivation	HOW do you motivate EMPLOYEES to develop and utilize their full potential?
	18. ESI	HOW do you use other INDICATORS, such as EMPLOYEE retention, absenteeism, grievances, safety, and PRODUCTIVITY, to assess and improve EMPLOYEE well-being, satisfaction, and motivation?
Process	19. Value Process	HOW do you determine KEY VALUE CREATION PROCESS requirements, incorporating input from CUSTOMERS, suppliers, PARTNERS, and collaborators, as appropriate?
	20. Support Process	HOW do you determine KEY support PROCESS requirements, incorporating input from internal and external CUSTOMERS, suppliers, PARTNERS, and collaborators, as appropriate?
	21. Process Measures	What are your KEY PERFORMANCE MEASURES or INDICATORS used for the control and improvement of your support PROCESSES?
Results	22. Financial Performance	What are your current LEVELS and TRENDS in KEY MEASURES or INDICATORS of financial PERFORMANCE?
	23. Customer Performance	What are your current LEVELS and TRENDS in KEY MEASURES or INDICATORS of CUSTOMER satisfaction and dissatisfaction?
	24. HR Performance	What are your current LEVELS and TRENDS in KEY MEASURES of EMPLOYEE LEARNING and development?
	25. Socal Performance	What are your RESULTS for KEY MEASURES or INDICATORS of organizational citizenship in support of your KEY communities?

3.4 The Validation of the KAQs

To validate the potential performance of the 25 KAQs, we compare two extreme assessing scenarios. The KAQ's are first applied to assess the 56 site offices of the telecommunication company. The assessment results are then compared with those obtained from the 25 questions with lowest correlation coefficients. As shown in Table 3, the average scores of the 25 KAQs are quite close to those of actual assessment results. On the contrary, the scores of poorly correlated questions show relatively large deviations. This outcome indicates that the KAQs can be effectively used in determining of level of management quality.

Table 3. Validity Comparison of the 25 KAQs

Category	Leadership	Strategy	Customer	Information	HR	Process	Results	Total
Total Points	120	85	85	90	85	85	450	1000
Scores of 25 KAQs	55.5	45.33	38.25	40.5	41.44	38.25	223.54	507.81
Scores of 25 PAQs	60	43.94	39.35	37.53	44.62	39.7	193	483.14
Actual Scores	55.4	45.13	39.69	41.22	42.16	39.01	220.48	483.09

4. Conclusion

This research proposes a set of 25 key criteria for self assessment using the Baldrige criteria. The selection process, 25 questions, and the validity of the questions have been delineated. The proposed criteria can be used for pre-assessment when the proxy level of management quality is of interest. It can also be used in diagnosing categorial strengths and weaknesses within a limited assessment time.

The validity of the proposed criteria has been proved using only a case study in a tele-communication service company. With more extensive research efforts in other fields the 25 Key Assessment Questions can be generalized for wide ranges of applications.

References

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