

The Africa Kaizen Award: Its Practice and Contribution to Quality and Productivity Improvement in Africa

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1. Introduction

This chapter reports on how the Africa Kaizen Award (AKA) came about, and its objectives and essential features. Embedded in the chapter is a review of the wider vision of the founders. Also, a comparison with similar awards is undertaken. Furthermore, the chapter reports on the process followed to launch the award and the bestowing of the first awards at the Africa Kaizen Annual Conference (AKAC), held in Tunisia in June 2019. It concludes with a range of recommendations.

Two constituencies are key to the AKA: first, those who put forward organizations for consideration for the award (the Nominators) and, second, those so nominated (the Nominees). To assess the response of these two constituencies a survey was conducted, via an emailed questionnaire, seven months after AKAC 2019. The response rate of the survey was disappointing, and it was difficult to conduct rigorous statistical analysis. Nevertheless, the survey results contain useful information, observations and recommendations for the future of the AKA; they conclude this chapter.

2. Overview of the Africa Kaizen Award (AKA)

2.1. *Genesis of the AKA*

What gave rise to the Africa Kaizen Award? A series of engagements took place with African leaders at the Sixth Tokyo International Conference on African Development (TICAD VI) in 2016. The engagements continued at the *Kaizen* Knowledge Sharing Seminar, Nairobi, April 2017, which led

the New Partnership for Africa's Development (NEPAD) Agency¹ and the Japan International Cooperation Agency (JICA) to launch the Africa Kaizen Initiative (AKI) '[to] accelerate momentum, integrate knowledge and mobilize resources for further *Kaizen* dissemination in Africa' (AKA Secretariat 2018).

The deliberations in Nairobi in 2017 led to the first Africa Kaizen Annual Conference (AKAC) in Durban, July 2018. The decision to establish the African Kaizen Award was an outcome of the Durban AKAC. A breakout sub-session for policy makers on Day 1 of the AKAC discussed suggestions for an AKA; this intent was expressed as: 'The aim of the Award is to encourage best practices throughout Africa' (AKAC Secretariat 2018). On Day 3, a 30-strong subset of the one hundred and twenty participants discussed the topic 'Towards an African Kaizen Award.' Subsequent to these deliberations, the following points were agreed (quoted from the AKAC Secretariat 2018, para 46):

- (1) Purpose of the award is to motivate firms and organizations.
- (2) An action plan should be developed.
- (3) An assessment process should be established for the credibility of the award and to ensure transparency. For this, we need to have a steering committee which will elaborate a standard assessment system including the identification of evaluation criteria.
- (4) The main points which must be evaluated are the engagement of leadership, the allocated resources for *Kaizen* activities, check the setup of *Kaizen* activities (GEMBA CHECK), results related to productivity improvement, impacts of *Kaizen*, how the organization is disseminating *Kaizen* for others.
- (5) Communication system between group members should be adopted for sharing documents, remarks, feedback.
- (6) The role of national organization must be identified mainly for providing funding from government or ask other sponsors for funding.

A comprehensive document, setting out all the major features and processes for the AKA 2019,² was circulated by JICA in late 2018 (AKA

¹ In 2018, the African Union (AU) decided to transform the NEPAD Agency to the African Union Development Agency (AUDA-NEPAD).

² Kimiaki Jin, JICA, and Hiroshi Osada, Professor Emeritus, Tokyo Institute of Technology, designed the overall process, categories and evaluation criteria of AKA2019.

Secretariat 2018). The composition and roles of the AKA Secretariat (hereafter referred to as the Secretariat) and Examination Committee (EC) for 2019 were stated as follows:

- The Secretariat members: NEPAD *Kaizen* focal points, JICA Project Formulation Advisors to NEPAD and JICA *Kaizen* focal points;
- EC members³: a chair and six evaluators, three evaluators from Africa and three others from outside of Africa.

Furthermore, the document stated that the primary objectives of the award are: (i) to demonstrate the benefits of *Kaizen* and make this known to the public; (ii) to encourage all practitioners to disseminate and upscale *Kaizen* practices; and (iii) to facilitate development of a national award system in each target country.

Finally, it is clear from the opening paragraph of a recent document that JICA has a long-term vision of contributing to Africa's development and that the AKA is integral to that vision:

Quality and productivity improvement activities are critical to develop industries and services in Africa and success in modern economy. Their improvement is essential to transform Africa and realising its potential, in particular, to entering international markets and global value chains. (AKA Secretariat 2020)

This is a bold assertion. We return to it in Section 5.3, in our discussion of the third of the objectives of the AKA.

2.2. Participating countries in 2019

JICA supports and promotes *Kaizen* in the following nine countries in Africa: Cameroon, Egypt, Ethiopia, Ghana, Kenya, South Africa, Tanzania, Tunisia, and Zambia. Nominations for the 2019 AKA were primarily drawn from these countries, but not exclusively. In addition, six other countries, as participants in the Pan-African Productivity Association (PAPA), were also invited to submit nominations: Botswana, Burkina Faso, Mauritius, Namibia, Nigeria, and Zimbabwe. Furthermore, 'Other countries in Africa

³ The members were appointed by the Secretariat in late 2018.

could also submit nominees if NEPAD Agency and JICA agree that there is enough evidence to nominate a capable organization or team/circle in its country for the award' (AKA Secretariat 2018).

2.3. Types of AKA Awards and the nomination process

Two categories of Award were established: one for organizations and the other for *Kaizen* teams or circles (AKA Secretariat 2018). Each of the sixteen countries has one or two '*Kaizen* promoting institutes or units' permitted to submit to JICA the names of candidate organizations or *Kaizen* teams. Each country may nominate up to two organizations or teams. The nominations were to be made via a standard form, supported by evidence that the *Kaizen* supporting institute had conducted onsite surveys and recommended the nominee for consideration by the EC for an AKA.

2.4. Evaluation criteria and Entry Sheets

AKA criteria were set for each category of the award, viz. organizations and *Kaizen* team/circle. Although the general framework for the AKA criteria is based on the evaluation criteria of the Deming Prize in 2018, it also incorporates key elements arising from the 'characteristics and effects of *Kaizen*' as depicted in Figure 5.1 from the JICA *Kaizen Handbook* (JICA 2018). An information document, setting out the purpose, processes and schedule of the Africa Kaizen Award for 2019, was approved by the EC in December 2018 (AKA Secretariat 2018). The 'Entry Sheet' for each category of the award (see Appendices 5.1 and 5.2) asked applicants to provide 'Information on *Kaizen* Activities' under three 'first level' headings: Objectives, Process, and Outputs/Outcomes of their *Kaizen* activities. Each of these headings was followed by sub-headings which were mostly the same, but not identical, as the criteria included in the 'Evaluation Criteria' stipulated for the EC as per Appendices 5.3 and 5.4. A comparison with the criteria of other awards is below in Section 3.2.

The information document (AKA Secretariat 2018) was sent to Nominators in early January 2019, for submission of Entry Sheets by late February. Appendices within the document set out the evaluation criteria agreed by the EC in December 2018, and the entry forms, as follows:



Source: Adapted by the JICA Study Team from a JICA's brochure "KAIZEN Management approach for enhancing quality and productivity: the driving force economic development"

Source: AKA Secretariat (2018).

Figure 5.1. Characteristics and Effects of *Kaizen*

- For organizations: evaluation criteria in Appendix 5.3 and entry requirements in Appendix 5.1;
- For *Kaizen* teams/circles: evaluation criteria in Appendix 5.4 and entry requirements in Appendix 5.2.

Table 5.1 shows the headings of evaluation criteria for organizations extracted from Appendix 5.3.

Table 5.1. Headings of Evaluation Criteria for Organizations

No		Features		
1	Objectives	a) Organizational vision and strategies	1 2 3 4 5	/20
		b) Clarity of <i>Kaizen</i> activities	1 2 3 4 5	
		c) Scope of <i>Kaizen</i> activities	1 2 3 4 5	
		d) Commitment of the management	1 2 3 4 5	
2	Process	a) Participatory approach	1 2 3 4 5	/20
		b) Continuous approach	1 2 3 4 5	
		c) Scientific approach	1 2 3 4 5	
		d) Economical approach (efficiency)	1 2 3 4 5	
3	Outputs/Outcomes	a) Quality of products/services	1 2 3 4 5	/50
		b) Productivity of products/services	1 2 3 4 5	
		c) Motivation of and incentives for workers	1 2 3 4 5	
		d) Skill development of workers	1 2 3 4 5	
		e) Teamwork and communication	1 2 3 4 5	
		f) Safe and comfortable work environment	1 2 3 4 5	
		g) Customers satisfaction	1 2 3 4 5	
		h) Social responsibility	1 2 3 4 5	
		i) Spillover effects	1 2 3 4 5	
		j) Achievement of organizational objectives and targets	1 2 3 4 5	
4	Presentation	• Presentation (or description) is made within specified time (or volume) and completed in good balance.	1 2 3 4 5	/10
		• Presenter makes clear and impressive explanation as well as responses to questions/comments made by audience.	1 2 3 4 5	
Total				/100

Source: Adopted from AKA Secretariat (2018).

2.5. Nominees for the 2019 AKA

As indicated above, sixteen countries were eligible to submit up to two nominations each. The maximum number of nominees was thus thirty-two, and the actual number received was sixteen, from eight countries. Of the eight primary countries eligible to nominate, only Egypt failed to do so. PAPA member organizations in Kenya, South Africa, Tanzania, and Zambia also submitted nominees. No other African country submitted nominations. Of the PAPA countries, Botswana, Mauritius, Nigeria, and Zimbabwe did not attend the AKAC 2019.

The Secretariat conducted a preliminary screening, reducing the sixteen submissions to nine, eight in the category of Organization Award and one in the category of *Kaizen* team/circle. Table 5.2 identifies the Nominees short-listed for the Awards. In consultation with the EC, all sixteen nominees were invited to attend the AKAC in Tunisia in June, with the selected nine being required to make presentations to the gathering, and the balance to provide posters for exhibition at the AKAC.

Table 5.2. Nominees Deemed Eligible for the Final Round of Examination

Nominee code	Country	Nature of business
G	South Africa	Logistics
A	Tanzania	Textiles and garments
E	South Africa	Electrical harnesses for automotive
B	Ethiopia	Textiles and garments
F	Tunisia	Electrical apparatus manufacturing
D	Tunisia	Electrical apparatus manufacturing
H	Kenya	Agro-technology manufacturing
C	Ethiopia	Borehole drilling
Z	Zambia	Hospital

2.6. Examination Committee process

Evaluation of the applicants was done prior to the conference. On May 10, the Secretariat released to EC members two significant documents. The first was entitled ‘Process of the Africa Kaizen Award 2019.’ The comprehensive information for the EC members is shown in Table 5.3. Furthermore, the EC members were given access to the full set of Entry Sheets of the nine Nominees scoring over 60 per cent via a password protected GIGAPOD link. The Secretariat also distributed to members of the EC an Excel file with three sheets:

- Each row in the first sheet summarized a Nominee’s application under these column headings: Country, Nominee, Category, Business, Capital & Turnover, Number of Staff, Major *Kaizen* activities, Major outcomes, Title of application documents saved in GIGAPOD, Nominator, and Contact person (The application forms of the nine were by an emailed link);

- The second, a blank Scoring sheet with a row for each Nominee, had these headings: Country, Nominee, Category, Nature of Business, Capital & Turnover, Number of Staff, Objectives (vision, activities, scope, commitment of management) (to be scored out of 20), Process (participatory, continuous, scientific, economical)(to be scored out of 20), Outputs (quality, productivity, motivation, skill, teamwork, safety) and Outcomes (customer, corporate social responsibility (CSR), spillover, organizational objectives)(to be scored out of 50), Presentation (format, clarity)(to be scored at the conference, out of 10), and Total (out of 100);
- The third, a detailed blank, scoring sheet with a row for each of the eighteen evaluation criteria (grouped thus: four for Objectives, four for Process, and ten for Outputs/Outcomes) arranged for each Nominee.

Table 5.3. Structure of EC Briefing Document Released May 10, 2019

Document Title	Process of the Africa Kaizen Award 2019
Section	Section heading
1	The First Screening by the Secretariat
2	Preliminary Scoring by the Examiners (10 May – 10 June)
3	Process at the Annual Conference in Tunisia (23 June – 27 June)
3-1	Preparatory Meeting (evening of 23 June)
3-2	Presentation Session at the Conference (afternoon 24 June)
3-3	Poster Session at the Conference
3-4	Selection of Awardees (finalize morning of 25 June)
3-5	Awarding Ceremony (evening of 26 June)
3-6	Evaluation Process (morning of 27 June)
4	Selection of the Awardees
5	Contact address (of EC members)
Annexure	Annexure heading
1	List of Nominees Who Make Oral Presentations
2	List of Nominees Who Make Presentations at the Poster Session
3	Schedule for Africa Kaizen Award towards the Annual Conference
4	Evaluation Criteria for Organization (as per Table 5.1) and for <i>Kaizen</i> Team/Circle (as per Table 5.2)
5	Tentative schedule for the Examination Committee and Tentative Agenda

The third sheet allowed each member of the EC to enter a score from the scale of zero to five, against the detailed statements shown in Appendices 5.3 and 5.4. The second sheet could then be used to report the score per section, i.e. Objectives, Process, and Outputs/Outcomes.

Skype calls were conducted in mid-May with the JICA AKA organizers to ensure that members of the EC understood clearly what was required of them in the examination process. The return date for their evaluations was June 10, 2019. Upon arrival at the Tunisian conference venue on June 23, the EC members attended a meeting with the Secretariat to ensure full understanding of their role over the next few days. Last minute problems meant that just four people were involved in the activities of the EC at the AKAC, three from Japan and one from South Africa. Each member was given a version of sheet two, as described above, reflecting their previously submitted scores. They were told that these scores could be revised prior to the submission of the final, completed scoring sheet, once the Nominee presentations had been concluded.

AKAC 2019 itself commenced on the morning of Monday June 24. Proceedings ran from 8:30 to the lunch break at 12:30. About two hundred people were present to hear a range of dignitaries and guest speakers address a range of topics. The afternoon session started at 13:30. Members of the EC were seated in the front row of the conference and provided with a microphone with which to pose questions to the presenters. The eight presentations for the Organizations Award were made in alphabetical sequence of company name, each allocated twenty minutes, including the time for questions and answers. After all these were over, the single entry for the *Kaizen* team/circle presented.

The session for the first five presentations ended at 15:30. The final four presentations began at 16:00 and were concluded at 17:30. Immediately thereafter the poster session took place. This was designed to give the EC members a further chance, more privately, to question presenters. Moreover, it gave the companies that scored below 60 per cent the chance to showcase their activities. The presentations allowed the members of the EC to question and clarify any aspect of either the presentation or the Entry Sheet. Each then assigned a score for the presentation and revised any subsection score. They were asked to hand the final assessment to the Secretariat by 20:30 the same day.

2.7. Examination Committee results

At 7:30 the next morning, the EC members met with members of the Secretariat who distributed a one-page summary of the scoring. The sheet showed the final total score given by each examiner to each of the nine Nominees. The Secretariat explained that for each Nominee, the highest and lowest scores were eliminated and the two remaining scores averaged to arrive at the score used to rank the Nominees. It was soon clear that each examiner had his own base line: Table 5.4 shows the number of times each examiner either gave the highest or the lowest score for a Nominee. Clearly, examiner A was most consistent in giving the lowest score and examiner D in giving the highest score. In only one instance were the scores of these two examiners used to find the average for a Nominee.

Table 5.4. Frequency of Extreme Scores by EC Members

Examiner		A	B	C	D
Number of times scored	Lowest	5	3	1	0
	Highest	1	1	2	5

The 7:30 meeting, based on the ranking, discussed which Nominees should receive which awards. Regarding the awards for organizations, an initial proposal was put forward by the Secretariat: two Outstanding awards, two Excellent awards, and four Prize for *Kaizen* Achievement awards. After discussion the EC and Secretariat agreed the following: two Outstanding awards, three Excellent awards, and three prizes for *Kaizen* Achievement awards. It was further agreed to elevate the single candidate for the *Kaizen* team/circle award to Exemplary.

2.8. Common Kaizen elements from the submissions

What were the outcomes reported by the Nominees in their Entry Sheets? Table 5.5 shows these ranked as per the EC scoring. Only outcomes that were quantified in the Entry Sheets were included. Furthermore, the coding of each aspect reported allows for a general picture of the particular value the nominees achieved. One of the nominees failed to provide anything but generalized statements of outcomes achieved, leaving data from just eight to be considered. The eight predominantly indicated significant improvements in productivity and quality. Indeed, all but one (the hospital) claimed productivity improvements, and four

Table 5.5. Outcomes Reported in Entry Sheets, Ranked by EC Scores

Rank	Nominee (year <i>Kaizen</i> started)	Outcome reported	Coding
1	A (2017)	Net fabric rejects per day reduced by 24% Stitched net repairs per day reduced by 44% Plastics production performance improved by 13% Woven production performance improved 16% Time to find tools from 2 mins to 40 sec.	qi pi qi pi pi pi pi
1	B (2013)	Total Production: piece output up by 66% Total Sales increased by 20% Labour Productivity measured as pcs/day/operator increased by 100% to 2017	pi si pi
3	C (2014)	From before <i>Kaizen</i> to after <i>Kaizen</i> : Revenue: increased by 134% and profits by 266%	si & pi
3	D (2008)	Productivity measured as Pcs/Person/hour/M2 increased for - socket production by 104% - switch assembly line by 51% Lead time measured in minutes improved for - socket production from 37 to 11 - switch assembly line from 32 to 4.60	pi pi ltr ltr
5	E (2018)	Reduce Work-in-Process from 650 to 13 Target of customer satisfaction met 100% of the set actions and targets have been achieved	pi & ltr qi ?
6	F (2016)	Productivity measured as P/Hr/pre increased for - process HC1550 by 186% improvement - process HC550 by 87.2% Required space measured as m2 reduced for - HC1550 by 5.3% - HC550 14.7%	pi pi pi pi
7	G (2014)	Movement between 2013 and 2018: Customer Satisfaction Index - from 65% to 92% Net Profit After Tax - from 2.77% to 4.0% Total income/total expenditure - from 101 to 120 Annual labour turnover – from 6% to 0.01% Total Productivity - 10% to 24%	qi pi qwl pi
8	H (2015)	(None of the outcomes claimed were quantified)	
Team/ Circle	Z (2018)	Patient waiting time reduced in - ARV Department from 5 hours to 3 hours - Out Patient Department from 6 hours to 4 hours	ltr & qi ltr & qi

Key: qi = quality improvement pi = productivity improvement si = sales improvement.
ltr = lead time reduction qwl = quality of work life.

claimed quality improvements. Three mentioned lead time reduction as a benefit achieved. Increased sales/turnover were claimed by two. Only one of the eight mentioned improved quality of work life as an outcome.

Which *Kaizen* elements were most frequently mentioned by the nominees, such as 5S, Visual Management, Quality Control (QC) Circles, Fishbone diagrams, or 7 Wastes? Table 5.6 shows, again in rank order as per the EC scoring, the extent to which the eight Organization Nominees mentioned the use of these elements. Organizations are listed according to the ranking given by the EC, with the *Kaizen* team/circle last.

Table 5.6. *Kaizen* Elements Most Frequently Mentioned

Ranking by EC scoring	Nominee	<i>Kaizen</i> Practices Reported in Entry Sheet				
		5S	VM*	QC Circle	CEDAC+	Other
1	A	Y	Y	Y	Y	
1	B	Y	Y	Y	Y	
3	C	Y	Y	(Y)	Y	
3	D	Y	Y		Y	
5	E	Y	Y			
6	F	Y	Y		Y	
7	G					
8	H	Y	Y			
Team/Circle	Z	Y	Y	Y	Y	

*VM = Visual Management.

+ = Cause and Effect Diagram with Addition of Cards (Fishbone Diagram).

It is clear that the higher scoring Nominees made use of more of the elements. The *Kaizen* team/circle, given an 'Exemplary' award, also used a wider range. Only one of the Nominees failed to explicitly mention any of the elements. All eight of the others mentioned both 5S and Visual Management. Six out of eight used CEDAC/Fishbone. Three explicitly mentioned QC Circles, while a fourth appeared to use the approach. But this is an interpretation of what was stated.

Although no clear picture is apparent, Table 5.7 lists the Nominees by size⁴

⁴ AKA2020 changed its award categories from the organization and *Kaizen* team/circle (which was the case of AKA 2019) to the large-scale organization and small & medium-scale organization.

(in terms of number of regular/permanent staff), years of implementing *Kaizen*, and the ranking following EC scoring. The two largest companies ranked equal first. The two smallest fell into the bottom half of the ranking. Years of *Kaizen* use varied from 1 to 11, with most in the three-to-four-year category. Three, including the hospital, had less than three years' experience. One appeared to start with *Kaizen* just nine months before submitting their Entry Sheet.

Table 5.7. Size and Years of *Kaizen* Experience, Ranked by EC Scores

Ranking by EC scoring	Nominee	Permanent employees	Years of <i>Kaizen</i>
1	A	7000	2
1	B	1550	5
3	C	450	4
3	D	208	11
5	E	59	1
6	F	1200	3
7	G	250	4
8	H	68	4
Team/Circle	Z	200	1

3. The AKA in Comparison with Other Award Systems

3.1. The proliferation of awards and their motivation

By 2001 more than 70 quality awards had been established worldwide (Calingo 2002), and they continue to proliferate; by 2004 there were over 90 quality and business excellence awards in over 75 countries (Koura and Talwar 2008). Probably the best known and oldest is the Deming Prize established in Japan in 1951. In 1987 the United States (US) established the Malcolm Baldrige National Quality Award, awarded for 'business excellence,' probably the next most famous 'excellence' award, but, as indicated, many other awards have been established since then (Talwar 2011a).

What motivates the establishment of these awards? The Deming Prize looked for the successful application of Total Quality Control based on statistical process control (Dooley et al. 1990). The Baldrige is seen to raise awareness of excellence as a competitive edge (Best and Neuhauser 2011). The title of an Asian Productivity Organization book arising from a

conference sums up much of what motivates the establishment of awards: *The Quest for Global Competitiveness Through National Quality and Business Excellence Awards* (Calingo 2002). Raising competitiveness grows an economy, adds jobs, and raises social wellbeing; this is essentially what lies behind the establishment of the awards within countries. A similar sentiment lies behind the establishment of the AKA.⁵

Research tells us that, over time, awards play the role of encouraging a broader adoption of good practice (Gupta 2019; Baldrige 2015; Best and Neuhauser 2011; Dooley et al. 1990). Moreover, the application process headings used in the award applications can guide adoption of improved practices and outcomes (Doulatbadi and Yusof 2018; Lee 2002; Rajashekharaiyah 2014). However, there are bigger, continent-wide reasons for promoting the AKA, as evidenced by the above quotation from AKA Secretariat 2020: ‘transform Africa’ to enter ‘international markets and global value chains.’ It declares that ‘quality and productivity improvement activities’ are critical to this objective.

This is a bold ambition. Where do nations find the quality and productivity improvement activities to adopt, if not from countries that appear to have developed and refined practices that underpin their superior competitiveness? And awards can lend assistance: for instance, both the American and Japanese agencies promoting their national awards offer training associated with their award criteria (Baldrige 2020a; JUSE 2020b). We now turn to review the criteria of some of the foremost awards.

3.2. A comparison of award criteria

The criteria used in awards such as Deming, Baldrige, European Foundation for Quality Management (EFQM), and others are stated or analyzed in various papers (Uygun et al. 2020; Best and Neuhauser 2011; Koura and Talwar 2008; Miguel 2001; Dooley et al. 1990). The preponderance of the comparison insights reported below are from papers published in 2020 and 2011 (Uygun et al. 2020; Talwar 2011a, 2011b).

Talwar (2011a) identifies 100 BEMs/NQAs (Business Excellence Models/National Quality Awards), relating their criteria relative to those of the

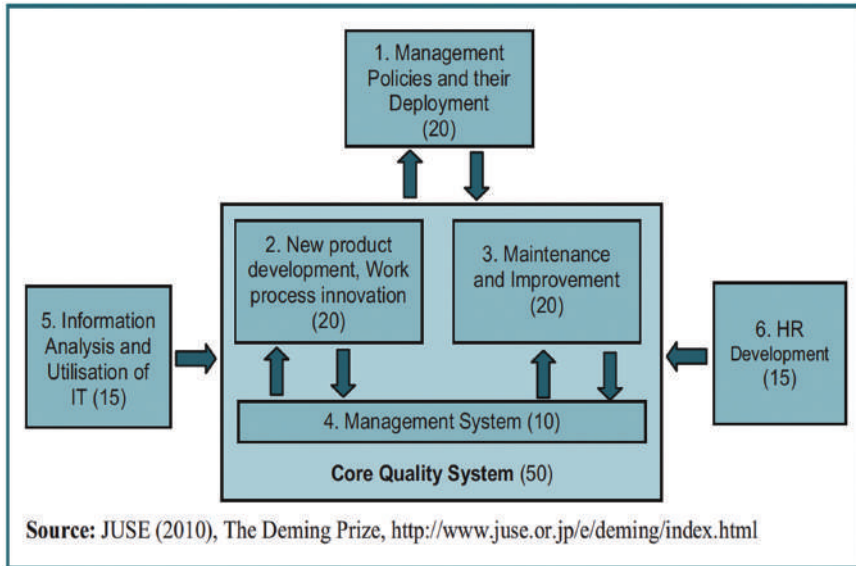
⁵ From notes taken by the author from a speech by the CEO of NEPAD, Ibrahim Assane Mayaki, at the opening of the Africa *Kaizen* Awards Conference, Tunisia; June 2019.

Deming Prize, the Baldrige Award and the European Award; he finds that these three awards are most frequently used as the basis for BEMs in the other countries. He concludes that 'evaluation criteria of most of the BEMs/NQAs are similar.' But the weighting varies: criteria relating to customers, employees and business results account for 'about 50 per cent' in most awards. However, this is not true for the Deming Prize. It assigns 'maximum weighting' to the 'internal environment criteria' of leadership, strategic planning, processes and knowledge, and information management. At the lower end of weighting, two criteria, accounting for less than 10 per cent, are 'society' and 'supplier/partners.' Talwar (2011a) further notes that the Deming Prize has a focus on 'core quality systems' through a 'hand-holding approach' and is highly prescriptive, supported with 'TQM diagnosis' by the assessors. In contrast, most BEMs, are non-prescriptive and have a focus on 'business results,' including the Baldrige and European Awards (Talwar 2011b).

The second Talwar paper goes into greater detail on 20 BEMs/NQAs (Talwar 2011b). It reports nine criteria as most common. Through the analysis of criteria and weightings across the 20 awards, the nine criteria being grouped under three headings:

- Core criteria ('a must for survival')
 - Customer
 - People
 - Business results
- Internal environment criteria ('the differentiators')
 - Processes
 - Leadership
 - Strategic planning
 - Knowledge and information management
- Stakeholder value ('satisfaction')
 - Society
 - Suppliers/partners

Many of the awards have a diagram to depict the interrelationship of criteria (Miguel 2001). Figure 5.1 is the equivalent for the AKA. A diagrammatic representation of the Deming Prize criteria, showing the



Source: Talwar (2011a).

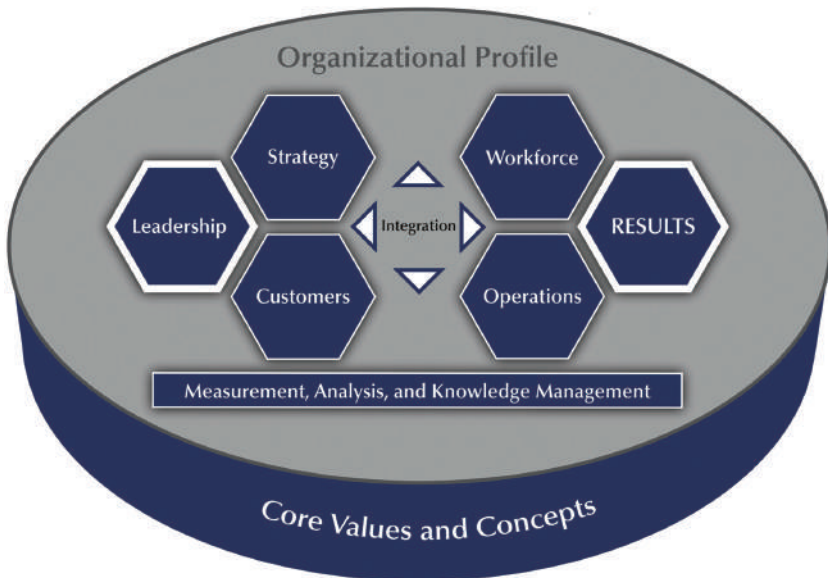
Figure 5.2. A Diagrammatic Representation of the Deming Prize Criteria

‘points’ (totaling 100) assigned to each, is shown in Figure 5.2⁶ (Talwar 2011a). The equivalent schematic for the Baldrige award criteria, without ‘points,’ is depicted in Figure 5.3 (National Institute of Standards and Technology 2019).

Some awards established subsequent to the Baldrige group criteria in ways similar to that system. For instance, the EFQM requires applicants to report under headings and subheadings, as shown in Figure 5.4 (Miguel 2001).

A helpful paper in comparing the above three awards is that by Uygun et al. (2020). The paper, together with the above sources are the basis for Table 5.8 which shows a comparison of the criteria and weightings, shown in brackets, of all four awards (Please note that the weightings reported by Uygun et al. (2020) are not identical with those of Talwar (2011a); being more recent, the 2020 weightings are used here). The ‘criteria’ column

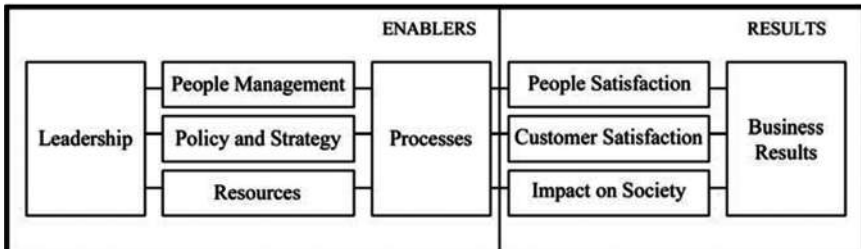
⁶ Evaluation criteria of the Deming Prize was revised in 2016. Total point has become 300 that consists of 100 for the establishment of business objectives and strategies and top management leadership, 100 for suitable utilization and implementation of TQM, and 100 for the effects of TQM.



From Baldrige Performance Excellence Program. 2019. 2019–2020 Baldrige Excellence Framework: Proven Leadership and Management Practices for High Performance. Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology. <https://www.nist.gov/baldrige>.

Source: National Institute of Standards and Technology (2019).

Figure 5.3. Baldrige Award Criteria



Source: Miguel (2001).

Figure 5.4. EFQM Criteria

is from Uygun et al. (2020). The next four columns give the ‘first level’ headings of the Deming, Baldrige, EFQM, and Africa Kaizen Awards, from the above depictions, Uygun et al. (2020), and Table 5.1. The fifth column shows the second level headings for the AKA, using only the criteria for an organization, i.e. those in Table 5.1. It is, however, important to note that ‘Human Resource Development’ has been inserted into Table 5.8 as a first level heading although it is not present in Table 5.1. All four of the

second level headings shown with this first level heading come originally from the 'Outputs/Outcomes' area of Table 5.1. Because the other three awards compared in Table 5.1 have a clear 'people' heading at the first level, it was deemed useful to rearrange criteria in this way. Please refer to Section 4 for recommendations regarding reviewing the AKA criteria.

Table 5.8. Comparison of First Level Award Criteria and Weights [x] with AKA Second Level Criteria

Criteria	First Level Headings for Award Criteria				*Second Level
	Deming	Baldrige	EFQM		AKA
Leadership	Management system (Organization) [10]	Leadership [10]	Leadership [10]		Commitment of top management (1d)
Strategic planning	Management policies and their deployment [10] Future Plans [10]	Strategy and strategic planning [10]	Policy and strategy [10]	Objectives [20]	Business vision and strategies (1a) Clarity and scope of activities (1b&c)
Assessment and evaluation	(Stated in effect criteria) Information analysis and utilization of IT [10]	Measurement, analysis and knowledge management [5]	(In output criteria)		
Human resource management	Human resource development [10]	Workforce and human resource focus [17]	People management [10] People satisfaction [10]	#Human resource development	Motivation and incentives (3c) Skill development (3d) Teamwork and communication (3e) Safe and comfortable environment (3f)

Criteria	First Level Headings for Award Criteria				*Second Level
	Deming	Baldrige	EFQM		AKA
Process oriented	Maintenance [10] Standardization [10] Quality assurance [10]	Operations and process management [17]	Process, products and services [10] Partnerships and resources [10]	Process [20]	Participatory (2a) Continuous approach (2b) Scientific approach (2c) Efficient (2d)
Continuous improvement	Improvement [10]				See 2b under 'Process'
Social responsibility	(Stated in effect criteria)	(Stated in results)	Impact on society [10]		Social responsibility (3h)
Focusing on output performance	Effects [10]	Customer focus and satisfaction [17] Business results [24]	Customer satisfaction [15] Business results [15]	Outputs/ Outcomes+ [50]	Quality and productivity improvement (3a&b) Customer satisfaction (3g) Achievement of organizational objectives and targets (3j)
Total points	100	100	100	90 + 10 for presentation	
Geographical region	Japan and world-wide	North America	Europe	Africa	

Source: Uygun et al. (2020), Table 5.1.

Note: *References in brackets are from Table 5.1.

Human resource development is not a First Level Heading in Table 5.1.

+ The score includes [20] for human resource development as shown in Table 5.1.

Comments arising from Table 5.8:

- (1) AKA has the fewest first level headings, meaning that each AKA heading covers a broader range of criteria. This may or may not be an advantage; 'Assessment and evaluation' (including analysis) is missing from AKA criteria.
- (2) 'Business results' is not an explicit AKA criterion. Business results, e.g. profits, are the outcome of so many factors that the AKA's 'Achievement of organizational objectives and targets' is probably a more appropriate criterion regarding a *Kaizen* initiative.
- (3) 'Social responsibility' is an explicit second level AKA criterion. Only the EFQM states it at the first level. Miguel (2001) reports that the

impact an applicant has on society, corporate responsibility and citizenship is a feature of many of the award criteria.

- (4) Baldrige and EFQM are most similar at the first level of headings;
- (5) Deming is low on Human Resource Development and on Output Performance.
- (6) Deming is high on Process Orientation, as is AKA.
- (7) Baldrige is strong on Output Performance (41/100), with EFQM at 30, and Deming just 10. AKA is difficult to assess. Although the weighting is 50/90 in Table 5.1, at least four of the criteria listed under Output performance can be seen to fall under Human Resource Development when compared with the other awards.

However, the biggest difference between the AKA and the other three awards is not revealed by Table 5.8. The Deming, Baldrige, and EFQM awards require applicants to report actual data which can be used in an 'absolute' scale of excellence, along with on-site verification by members of an adjudication committee (Baldrige 2020b; Business Excellence Australia 2019; Calingo 2002). The AKA EC members are not required to do on-site verification visits; obviously, such would require Africa-wide travel at extraordinary cost. The EC has to rely on each Nominator verifying the respective nominee's *Kaizen* journey; the Entry Sheet requests applicants to include 'data, measurable facts, and graphs appropriately to make explanation convincing;' the EC thus has to rely on the self-reporting. However, this is in line with the following extract:

At current stage, the award is not aiming to guarantee capacity and quality of work of the winning firms, but to promote *Kaizen* activities in Africa through information sharing of good practices. Therefore, evaluation is based comparative assessment, not based on absolute scale. However, after several years of experience of awarding, the system may be developed to more objective award system to evaluate concrete capacity of firms like ISO, Deming Prize and Good Design Award are doing. (AKA Secretariat 2018)

4. The AKA Contributions to Quality Productivity Improvement and Motivation towards Effective Implementation of *Kaizen*: Survey Results

A survey was conducted in 2020, but only to a limited number of those who participated in AKAC 2019: the Nominators and Nominees. According to the ‘List of participants’ issued at AKAC 2019, there were 215 delegates

Table 5.9. Country Participation in AKAC 2019, Ranked by Total Delegates

Rank by total delegates	Country	<i>Kaizen</i> delegate count	Count of JICA representatives	Note
1	Tunisia	95	10	Host country; one Excellent Award and one Prize for <i>Kaizen</i> Achievement Award
2	South Africa	15	1	Previous host country; one Excellent Award and one Prize for <i>Kaizen</i> Achievement Award
3	Japan	5	10	Sponsoring country
4	Ethiopia	10	4	Government spoke at previous AKAC; one Outstanding Award and one Excellent Award
5	Tanzania	11	1	Outstanding Award organization
6	Cameroon	9	1	No Nominee made final sixteen
7	Ghana	8	1	No Nominee made final sixteen
8	Kenya	4	2	One Prize for the <i>Kaizen</i> Achievement Award
8	Zambia	5	1	One Exemplary Award (<i>Kaizen</i> team/circle)
10	AUDA-NEPAD	3	1	
10	Mozambique	4	0	JICA serves from South Africa
12	Algeria	3	0	
12	Argentina	2	1	
12	DRC	2	1	
15	Malaysia	2	0	
16	Burkina Faso	1	0	
16	Egypt	1	0	No nomination made
16	Namibia	1	0	JICA serves from South Africa
Totals		181	34	215

from 17 countries, with 34 identified as JICA personnel. Of the non-JICA participants (181), 52 per cent were from the host country, Tunisia. Of the thirty-four JICA personnel, 10 were from Japan and 10 from Tunisia. The remaining 14 came from 10 countries. Table 5.9 sets out participation by country, in order of number of delegates, together with some notes.

The survey questionnaire (see Appendix 5.5) was distributed by the JICA Secretariat on behalf of Norman Faull to poll aspects of the influence of the conference and awards on the Nominators and Nominees. The questionnaire was sent as an email attachment in early February 2020, seven months after the conclusion of AKAC 2019. Out of a possible 29 responses, 10 were received, 8 from Nominators (out of a possible 13), and 2 from nominees (out of a possible 16). Given the low response rate, 15 Nominees were sent the questionnaire again in mid-March; this elicited 3 more responses. Table 5.10 summarizes the responses by the various categories.

Table 5.10. Questionnaire Distribution

Questionnaire		Note
Responses received	Number sent	
8	13	Nominators
5	16	Nominees
13	29	Total
1	2	Outstanding Award recipient
0	3	Excellent Award recipient
2	3	Prize for <i>Kaizen</i> Achievement Award
1	1	<i>Kaizen</i> Team/Circle Award recipient
1	7	Poster presenting organization
5	16	Total Nominees

4.1. Analysis method applied to questionnaire responses

Given the disappointingly small number of responses, the analysis of the data is essentially descriptive. Figure 5.5 shows a typical profile of responses, in this case from Nominees indicating the significance of various possible sources of information on the JICA *Kaizen* initiative. Respondents were asked to score according to the scale 1 = Unimportant/Weak and 7 = Highly important/Very strong.

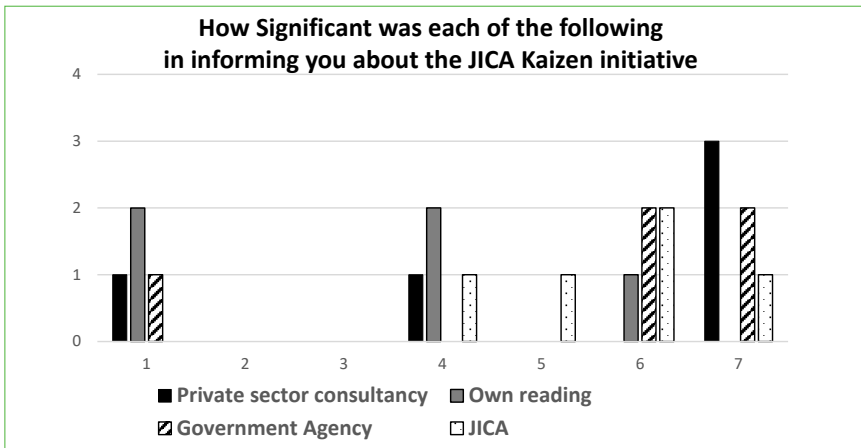


Figure 5.5. Illustration of Typical Response Profile to a Questionnaire Question

To clarify and simplify the data, a weighted score was calculated for each choice/option offered on the questionnaire, using only the counts of Important/Strong, i.e. of '6' and '7.' Here is an example, based on Figure 5.5 and using just the Nominee responses:

Private Sector Consultancy	$(7 \times 3) + (6 \times 0) = 21$
Own reading of articles/internet	$(7 \times 0) + (6 \times 1) = 6$
Your national government agency or institute	$(7 \times 2) + (6 \times 2) = 26$
Direct information from JICA	$(7 \times 1) + (6 \times 2) = 19$

Table 5.11 shows how these weighted scores were used to rank the sources of information according to the relative significance of each

Table 5.11. Illustration of How Significance was Calculated and Ranked

Source of information	Count of score		Weighted score	Percentage of total score	Rank
	7	6			
Private sector consultancy	3	0	21	29	2
Own reading of articles/internet	0	1	6	8	4
You national government agency or institute	2	2	26	36	1
Direct information from JICA	1	2	19	26	3
Total (rounding error)				99	

source of information on the JICA *Kaizen* initiative. However, in the reporting that follows, information is listed by EC ranking, and not as per the questionnaire sequence, as illustrated in Table 5.12.

Table 5.12. Significant Sources of Information about The JICA *Kaizen* Initiative (Question 1)

Source	Nominee		Nominator		Notes
	Weight %	Rank	Rank	Weight %	
Your national government agency or institute	36	1	1	35	
Private sector consultancy	29	2	4	12	Biggest difference
Direct information from JICA	26	3	1	35	
Own reading of articles/ internet	8	4	3	17	

4.2. Questionnaire results

The results of the questionnaire survey are tabulated in Tables 5.12 to 5.17. Other than ranking results by the method reported under Section 4.1, no statistical inference from results is attempted: the number of responses is too small. The tables present a simple ranking of the relative importance of the various dimensions explored by the questionnaire and no depth of analysis is attempted. It should be also noted that Questions 3 and 4, reported in Tables 5.16 and 5.17, were for Nominees only.

4.2.1. Major findings from the questionnaire surveys

The results of the questionnaire response, as compiled in the Tables 5.12 to 5.17, are summarized below. Recommendations arising from these observations are made in Section 5.1.

First, private sector consultants played quite a significant role in informing Nominees of the AKA, as Table 5.12 suggests (see the previous section). Second, there are some differences between Nominators and Nominees over their reasons for participating in the AKA, as indicated by Table 5.13. Whilst Nominators and Nominees agreed that ‘Quality of goods and services produced’ is the main reason for engaging with the AKA, there was a significant difference with respect to ‘Employee safety,

**Table 5.13. Reasons for Engaging with The Africa Kaizen Awards
(Question 2)**

Reason	Nominee		Nominator		Notes
	Weight %	Rank	Rank	Weight %	
Employee safety, well-being and morale	16	1	9	5	Biggest difference
Quality of goods and services being produced	16	1	1	14	In accord
Delivery reliability of goods and services being produced	13	3	5	11	
International competitiveness	12	4	2	14	
Speed of response to customer requests	10	5	5	11	
Affordability of goods and services being produced	9	6	2	14	Third biggest difference
Customer relations	9	6	7	8	
Domestic competitiveness	7	8	2	14	Second biggest difference
An instruction from your political seniors/senior managers	6	9	10	3	
Supplier relations	3	10	7	8	

well-being and morale.’ Nominees placed this first and Nominators ninth; Nominators should reflect on this: Africa is host to seven of the eight countries in the world most dangerous for workers (Statista 2020). ‘Domestic competitiveness’ is also ranked differently. It is less of a priority for the Nominees than the Nominators; the two populations probably have very different priorities with respect to the domestic market, the former being a participant in the market and the latter aiming to stimulate the domestic market in general. This may be reflected also in that ‘Affordability of goods and services being produced’ is also of more importance to Nominators than Nominees.

Third, while Nominators and Nominees largely agree on the ranking of benefits gained from attending AKAC 2019, they disagree on a few aspects that could have important implications for future activities to be planned by AKAC. As Table 5.14 shows, the most significant source of benefit whilst attending AKAC 2019 for Nominators came through ‘Knowledge

Table 5.14. Benefits of Attending AKAC 2019 (Question 5)

Benefit	Nominee		Nominator		Notes
	Weight %	Rank	Rank	Weight %	
Knowledge gained from presentations made by expert speakers	18	1	2	16	
Renewed personal motivation to continue with <i>Kaizen</i>	17	2	2	16	
Insights and motivation taken back to your own organization	17	2	2	16	
Knowledge gained from presentations made by other applicants	17	2	5	11	Next biggest difference
Insights and motivation taken back to your wider community	11	5	5	11	Low for Nominators?
Knowledge gained from poster presentations made by other applicants	10	6	5	11	
Knowledge gained from informal conversations during the conference	9	7	1	18	Biggest difference

gained from informal conversations during the conference’ whilst that was the least beneficial element for Nominees. Two points may be at play here:

- (1) Non-Tunisian private sector participants were in the minority at AKAC 2019. From the AKAC 2019 ‘List of Participants,’ and excluding the large Tunisian numbers, only 20 of the remaining 110 participants can be identified as coming from the private sector. Non-Tunisian Nominees, all from the private sector, were thus less likely to bump into other non-Tunisian private sector participants. This is not true for the Tunisian numbers: about 80 of the 105 Tunisian participants appear to be from the private sector.
- (2) Participants from JICA itself and from the Nominating organisations, excluding Tunisian participants constituted around 80 per cent of the participants. As a central function of these participants is the promotion of *Kaizen*, it is to be expected that they would take the opportunity of the AKAC to learn from each other in informal conversations.

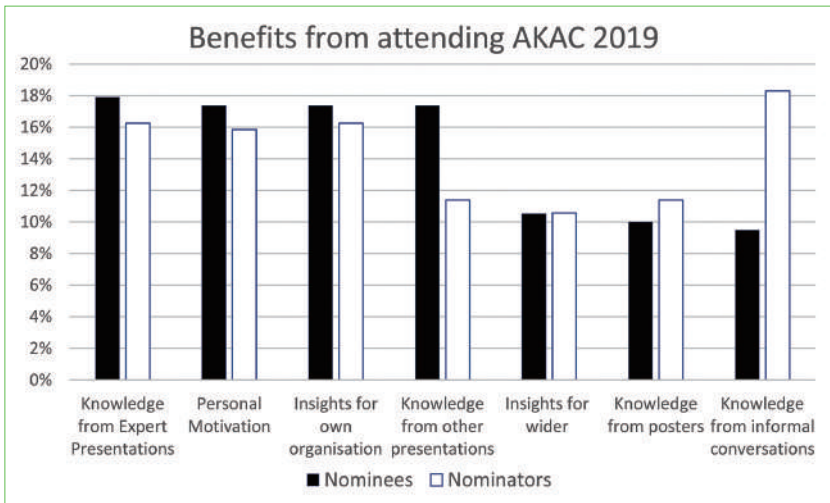


Figure 5.6. Contrasting Benefits from Attending AKAC 2019

Figure 5.6 gives further perspective on the benefits of attending AKAC 2019. Percentage benefit is ranked for the Nominees. Clearly the first three benefits, ‘Knowledge gained from presentations made by expert speakers,’ ‘Renewed personal motivation to continue with *Kaizen*,’ and ‘Insights and motivation taken back to your own organization,’ were equally beneficial to both groups. Similarly, both groups drew least benefit from Knowledge gained from poster presentations made by other applicants and Insights, and motivation taken back to your wider community. But it should be noted that Nominators took relatively less value from the presentations by Nominees; and this is disappointing. Furthermore, given their national roles, one might have expected that more motivation be taken back for their wider communities.

Fourth, the attendance of AKAC 2019 seems to have contributed to promoting *Kaizen* in various ways, for both Nominees and Nominators. Table 5.15 reflects outcomes for participants once they returned home. Unsurprisingly, Nominators talked more about JICA support than the Nominees, and did more to promote *Kaizen* outside of their organizations. However, it is heartening to see that both groups used *Kaizen* and new tools after returning home. This accords with the reported (Table 5.14) increased personal motivation and insights for own-organization improvements.

Table 5.15. Outcome of Post Africa Kaizen Annual Conference in Tunisia (Question 6)

Outcome	Nominee		Nominator		Notes
	Weight %	Rank	Rank	Weight %	
Promoted <i>Kaizen</i> in own organization	23	1	3	21	
Continued improvement in own organization based on <i>Kaizen</i>	21	2	4	17	
Used new tools or approaches in implementing <i>Kaizen</i>	21	3	5	13	
Promoted <i>Kaizen</i> outside own organization	17	4	2	22	
Talked about the support of JICA	17	4	1	27	Understandable difference

Lastly, the response to the two specific questions reserved for Nominees provide useful information on the benefits of AKAC gained through the application process. The results are reported in Tables 5.16 and 5.17. Both questions had to do with the application submitted for the AKA.

Table 5.16. Motivation for Submitting Application for AKA (Question 3 Nominees only)

Motivation	Nominee		Notes
	Weight %	Rank	
Give staff involved something to be proud of	26	1	68% of the motivation for applying lies with these three reasons
Pride in what the company/team has achieved	21	2	
Desire to share learning with others	21	2	
Senior management instruction	16	4	
Curiosity	11	5	
Possible trip to Tunisia	5	6	

Table 5.16 ranks the factors motivating the preparation of the application. Consistent with the priority of 'Employee safety, well-being and morale' (Table 5.13) is that 'Giving staff involved something to be proud of' was top of the list. Pride in what the company had achieved, and the desire to share learning, were nearly as significant. The facetious question regarding the trip to Tunisia was appropriately dismissed.

As shown in Table 5.17, the top two benefits of preparing the AKA application were that undertaking the application:

- (1) Created awareness of gaps in what had been done and thus revealed opportunities for further improvements; and
- (2) Widened the awareness of *Kaizen* in the company.

Furthermore, ‘Learning from the review of how we implement *Kaizen*’ also provided a benefit. The finding is consistent with the findings from other research (Lee 2002; Doulatatabadi and Yusof 2018). This benefit should be emphasized in the publicity for the AKA in each country. All three benefits listed in Table 5.17 are undoubtedly desirable in a company striving to improve.

Table 5.17. Benefits of Preparing the AKA Application (Question 4 Nominees only)

Benefit	Nominee		Notes
	Weight %	Rank	
Saw gaps in what we had done and thus saw opportunities	23	1	63% of the benefit of applying lies with these three benefits
Widening awareness of <i>Kaizen</i> in the company	23	1	
Learning from the review of how we implement <i>Kaizen</i>	17	3	
Insights from the on-site assessment by the nominating agency	16	4	
Conversations amongst staff involved	12	5	
Senior management appreciation	11	6	

4.2.2. General comments made at the end of the questionnaire

Six respondents added views: four Nominators and two Nominees. In summary, the following observations were made:

- (1) Appreciation for the role played by JICA in promoting *Kaizen* in Africa;
- (2) Appreciation for the learning afforded at AKAC;
- (3) Appreciation for JICA publications on *Kaizen*;
- (4) The valuable link between productivity improvement and socio-economic development;

- (5) AKAC motivated greater practical commitment to *Kaizen* on the return home;
- (6) An appeal to strengthen collaboration between JICA and the national agencies promoting productivity improvement; and
- (7) An appeal for an improved 'structure' or 'template' for nominations and presentations to 'follow a similar flow' and make it easier for 'the assessor to capture the relevant information.'

5. Observations, Recommendations, and Conclusions

5.1. *Observations and recommendations arising from the tables and application forms*

Table 5.12 shows the significance of private sector consultants in publicizing the AKA. An opportunity to broaden the number of companies aware of the AKAs and possibly result in a wider pool of applicants may lie here. The current Nominators should be encouraged to specifically target private sector consultants to advise them of the awards and the process for submitting an application; they in turn should then encourage their best clients to apply. This process would of course be even more beneficial should each country comprehensively revise the overall process by which the best possible applicants are identified. The AKA Secretariat has the goal of each country developing its own awarding process: ideally, perhaps, this would entail promoting national awards with the best companies going forward to the AKA.

Responses to the questionnaire show that, not surprisingly, the Nominees and Nominators come from different populations, often with quite different priorities and interests. This is clear from Tables 5.12 to 5.15 which summarize responses to questions 1, 2, 5, and 6. The difference in ranking between Nominees and Nominators is highlighted in some of the tables, e.g. Table 5.13. The differences should influence the marketing (by separately indicating the value for each group) and organization (through some separate break-out sessions for each group) of future AKACs.

As noted above, the differences in Table 5.14 that show the most valuable aspects of attending AKAC 2019 are considerable: Nominees gained little from informal conversations, while Nominators rated these most highly. In future AKACs it is recommended that a separate function be organized to which only the Nominees and EC members are invited. This function may take the form of a 'cocktail party' or something structured

to promote conversations amongst 'strangers,' and also taking account of the variety of languages represented. Nominees are in a minority at the AKAC and have little in common with Nominators from outside their own country, therefore some facilitated interaction and sharing may enrich their attendance. A further reason for proposing this: also in Table 5.14, Nominees report finding the presentations by Nominees to contribute well to the value they enjoy from the AKAC; being able to mingle informally should facilitate further value. Finally, such a function could be used to poll Nominees about ways to make attendance at the AKAC even more valuable; given how poor the response to the questionnaire survey was, the insights garnered from the function could add significant insights about how to do this, and to extend value to Nominees beyond the AKAC.

The low benefit enjoyed from the poster presentations should be noted. The effort needed to prepare them should be weighed against the value they appear to deliver. To reduce the effort perhaps it should be stipulated that the posters should be based on slides extracted from the presentations made in the plenary sessions. Should entries be restricted to organizations with at least three years' experience with *Kaizen*? Results from organizations with less than eighteen month's experience may just be showing a Hawthorne Effect. Should there be a separate category for those with more than eighteen months but less than 3 years? On page three of the Secretariat information sheet (AKA Secretariat 2018), at 8.a., it states that 'The *Kaizen* promoting institute/unit in each participating country collects basic facts and conducts an onsite survey of each possible candidate to confirm their *Kaizen* activities during the **past two years (2017-2018)**' (The bold type is in the original). However, Table 5.7 shows that, according to their Entry Sheet as summarized by the Secretariat, two Nominees failed to meet this criterion. Was this noticed by the Secretariat and condoned when short-listing for the Awards? Or was it not noticed by both the Secretariat and the examiners? The brevity of experience of some Nominees, and the wide range years of experience might need to be considered when plans are reviewed for future years.

Table 5.10 shows that the response to the questionnaire was disappointing, particularly from Nominees; overall only thirty-one per cent of the latter responded. Sixty-two per cent of Nominators responded. What does this indicate? Only one of the five organizations that received the top Awards responded. This may indicate that the impact and motivation from Conferences and Awards on private organizations wanes quickly.

A revision to, or addition to, the Award may be necessary. For instance, if JICA-sponsored marketing or advisory support for each awardee is included, there might be ongoing collaboration which sustains interest and value. It is suggested that awardees are consulted directly as to how collaboration can continue; alternatively, the Nominators may be asked how awardees might be motivated to support and assist future AKACs.

It is noticeable that the examiners found it easiest to evaluate those Entry Sheets that closely followed the prescribed format (Appendix 5.1 and Appendix 5.2). It is possible that this biased their judgement in favor of those submissions. An alternative view is that adherence to required standards is a mark of progress towards improvement and that adherence in this instance is correlated with such progress. The different scoring baselines of the examiners, as shown in Table 5.4, might also occasion a re-think of how the final scores are ranked. A way of standardizing the scores⁷ prior to ranking might be found to be fairer to Nominees. See Appendix 5.6 for a proposal of how to standardize scores prior to ranking.

Table 5.14, showing the high ranking afforded 'Knowledge gained from informal conversations during the conference' indicates the importance of AKAC for participants from governments and their agencies promoting *Kaizen*. Given this high ranking, it may be unnecessary to change the structure of the AKAC, but the value of refreshment breaks, lunches, etc. should be noted and the time allotted to such events should not be shortened.

5.2. Recommendations derived from the literature reviewed

The points and weighting given to criteria in other awards are periodically revised (Uygun et al. 2020; Tavana et al. 2011; Talwar 2011a, 2011b). It is recommended that the criteria and their weightings of the AKA also be periodically revised. Table 5.8 and the comments thereon may prove helpful in this regard; in particular, it is recommended that a first level 'Human Resource Development' heading be introduced. The views of business leaders and quality/productivity experts might be garnered to aid this process and improve the credibility of the revision, if any.

It is acknowledged that individuals will have different interpretations of

⁷ AKA 2020 applies the Normal Standard Scoring method for ranking.

the criteria. For instance, should 'Skill development of workers' (3d in Table 5.1) be considered an 'Output/Outcome' as at present, or a 'Process' element, i.e. an input element stimulating *Kaizen*, or one falling under the category 'Human Resource Development'? A review process should therefore reflect on the cause-effect nature of the criteria used. Members of the EC should be briefed on the reasoning adopted. In addition to these the following papers may also be of value should a review be undertaken: Calingo (2002), Doulatabadi and Yusof (2018), Miguel (2001), and Rajashekharaiyah (2014). It is further recommended, if not already done, to join the Global Excellence Model (GEM) Council. Their website states: 'Through a formalized approach for sharing knowledge, experience and information, the members of the GEM Council, as guardians of Premier Excellence Models and Award processes globally, enhance the value for their customers and other stakeholders' (GEM Council 2020). The on-site verification feature of other awards, mentioned in Section 3.2, is also important. Consultation with the national authorities to either fund such verification visits by an independent group, or to find other means of independent verification, is recommended. It is inconceivable that one verification team can do this for all African applicants. It will need to be nation-by-nation.

5.3. Observations and recommendations relative to the objectives of establishing the Award

As indicated in the introduction to this chapter, the primary objectives of the award are: (i) to demonstrate the benefits of *Kaizen* and make this known to the public; (ii) to encourage all practitioners to disseminate and upscale *Kaizen* practices; and (iii) to facilitate development of their own national awarding system in each target country. This chapter has reported the process and outcome of the inauguration of the AKA during 2018/19. Did these contribute to the above objectives? This chapter, via the survey questionnaire, can obviously only comment in the context of the AKAC 2019.

However, as preamble to this concluding section, it should be noted that the AKA has a range of 'interested parties.' Table 5.18 sets out some of these, together with their surmised 'interest' and the actions they might take in promoting that interest. It would be impertinent as well as beyond the remit of this chapter to make recommendations for each of these parties. Table 5.18 is therefore speculative at best. However, if

Table 5.18. Parties with an Interest in the AKA

Party	Nature of interest	Actions in support of AKA
1. Japanese government	Promote good will Promote trade	Host TICAD Mandate and fund JICA
2. JICA	Give effect to national policy	Africa Kaizen Initiative including AKA Dispatching experts <i>Kaizen Handbook</i> preparation Liaising with national agencies in Africa (Nominators)
3. Governments of African countries	Advance well-being of population through enhanced competitiveness and trade	Attend TICAD Mandate and fund Nominators
4. Nominators	Give effect to national policy regarding improved quality, productivity and competitiveness	Advisory services Learning from JICA Promoting national <i>Kaizen</i> award Publicize AKA Short-list potential AKA applicants Assist AKA application process of Nominees
5. Nominees	Publicity and marketing Review own <i>Kaizen</i> progress Motivate staff Learn from experts outside of own company	Apply for AKA Attend AKAC if invited Learning at AKAC Applying learning
6. Other interested parties		
6.1 Universities	Access to research subjects	Participate in national <i>Kaizen</i> award
6.2 Private sector consultants	Promote own profile	Promote awards amongst clients and potential clients Put forward best clients for awards
6.3 Chambers of Business, Commerce and Industry	Promote the interests of their members, with particular reference to enhanced competitiveness	Publicize: <ul style="list-style-type: none"> • The value of <i>Kaizen</i> • The work of Nominators and JICA • AKA
6.4 Trade Unions	Achieve for members: <ul style="list-style-type: none"> • Fair compensation • Safe work conditions • Development opportunities 	Monitor the criteria and process of national award and AKA

JICA wishes to review the purpose and processes of its African Kaizen Initiative in general and the AKA in particular, something along these lines might be appropriate. A panel drawn from interested parties and independent experts might be needed for such a comprehensive review.

As indicated in the second paragraph of this chapter, two constituencies are key to the AKA: the Nominators and the Nominees. Nominators are crucial to the development of *Kaizen* capabilities in organizations in their countries, leading to the availability of Nominees. The 'cause-and-effect' relationship here should be clearly recognized and strengthened. As indicated in Table 5.18, Nominators have the role of giving effect to national policy regarding improved quality, productivity and competitiveness. This role is congruent with the AKA objectives. This nexus between Nominator, promotion of *Kaizen* and the development of Nominees is unique among the awards reviewed above. JICA is already building a range of capabilities with Nominators. Perhaps further capability development in support of both *Kaizen* dissemination and the AKA can be devised, for instance, a standardized, on-site way of assessing potential nominees against the explicit (and evolving) criteria of the AKA; this may facilitate a move in support of the recommendation in Section 3.2 regarding independent assessment of applicants. Independent assessment will also be necessary if the nomination process is broadened, possibly even to allowing self-nomination. Furthermore, it should be noted that the literature asserts that the award criteria themselves act as a guide to improvement (Dooley et al. 1990; Rajashekharaiyah 2014; Gupta 2019).

Returning to the objectives (i) and (ii) above, the Nominees were indeed able to report the benefits of *Kaizen*, as shown in Table 5.5 and benefits were further shown through the poster presentations at AKAC 2019. There is only weak evidence to indicate that these benefits were made known to the public, as seen in the relatively low ranking of 'Insights and motivation taken back to your wider community' (Table 5.14) and the Nominees' low ranking of 'Promoted *Kaizen* outside own organization' (Table 5.15). It is recommended that Nominators be asked to collaborate with awardees to ensure such publicity happens; there will surely be benefits to both those parties and the promotion of *Kaizen* through such action. The recommendation regarding 'tours' to awardees' premises also pertains to the objective regarding the wider community.

As to the dissemination and upscaling of *Kaizen* practices, Tables 5.14 and

5.15 again provide supportive insights: personal motivation to continue with *Kaizen* ranked high, as well as the taking back of insights to own organizations. Nominees also rated high the 'Continued improvement in own organization based on *Kaizen*.' It is heartening to also see that both groups used *Kaizen* and new tools after returning home. However, it is difficult to claim that the award motivated organizations to take up *Kaizen*. The AKA was only announced late in 2018, with applications due in February 2019. Organizations had between 1- and 11-years' experience with *Kaizen* up to and including 2018. It is recommended that 'tours' to the award winning organisations be organized in the months following the AKAC. The aim should be to promote awareness and adoption of *Kaizen* as well as boost the prestige of the award winner. Obviously, a budget will be needed for this, as well as agreement about the limitations a host might want to invoke regarding visitors from competitors. These 'tours' might also be used to educate the visitors as to the AKA criteria and how to conduct self-audits (Doulatbadi and Yusof 2018).

Regarding the third objective (iii) of facilitating the 'development of their own national awarding system in each target country,' this research provides no evidence. However, the objective invites serious consideration. It is clear from the opening paragraph of a recent document that JICA has a long-term vision of contributing to Africa's development:

Quality and productivity improvement activities are critical to develop industries and services in Africa and success in modern economy. Their improvement is essential to transform Africa and realising its potential, in particular, to entering international markets and global value chains. (AKA Secretariat 2020)

This is a bold assertion. Where do nations find the quality and productivity improvement practices to adopt, if not from countries that appear to have developed and refined practices that underpin their superior competitiveness? Rote copying may be successful for some, but likely more effective would be the 'translation' of the practices and their adaptation to the local setting, circumstances and 'culture.' In the context of the AKA, is it JICA's wish to see the '*Kaizenization*' of Africa or the Africanization of *Kaizen*?

These are questions of some importance and lead to the concept of

‘translative adaptation.’ As indicated in Chapter 1 of this book, the concept means ‘the adaptive acceptance of advanced system and new culture,’ strongly inferring adoption, adaptation, and cultural assimilation (Maegawa 1998). Whilst stating that ‘the conditions that ensure the autonomy and uniqueness of every culture hardly exist,’ Maegawa (1998) encourages the vision that through translative adaptation, developing countries may become competitive, contributing, and respected participants in the modern world system of trade: ‘entering international markets and global value chains’ as per AKA Secretariat (2020).

Chapter 2 uses the concept of translative adaptation to explore how Japan and Singapore respectively undertook the adoption, adaptation, and cultural assimilation of practices to improve national competitiveness. In the case of Japan, it was the private sector corporations in the period following the World War II that took the lead to bring about translative adaptation of the practices seen to underpin the competitiveness of the US; a case in point is that in 1950 Japanese business leaders invited W. Edwards Deming to teach executives and engineers about science-based quality improvement (JUSE 2020b). In the case of Singapore, it was the government that took the lead and in doing so looked to Japanese practices for translative adaptation.

The JICA *Kaizen* promotion initiative, which includes the AKA, makes ‘practices’ and supportive advisors available. Will African governments, or private sector corporations, appropriate them in comprehensive translative adaptation? In so doing, will they succeed in approaching those of Japan and Singapore? Only time will tell. But in the way JICA is partnering with national productivity and quality improvement agencies across the continent of Africa, the PAPA and with the African Union Development Agency (AUDA-NEPAD), the opportunity exists for both governments and corporations. A fleshing out of the parties and their interests, as set out here in Table 5.18 may enrich the opportunity. A close reading of this volume’s Chapter 2 may also be helpful in understanding what would be required from and by the partners.

At an immediate and practical level, it is recommended that JICA and AUDA-NEPAD circulate a draft proposal to that effect to the Nominators prior to the upcoming AKAC meeting and convene a discussion of the proposal and practical pathways to the achievement of ‘their own national awarding system,’ possibly stated in the context and methodology of

translative adaptation. References that may be of value in drafting such a proposal are: Doulatabadi and Yusof (2018), Talwar (2011a and 2011b), and Miguel (2001).

If 'translative adaptation' of *Kaizen* practices is to take place in Africa, it will need an inspiring vision and a plan of action. JICA is providing such a stimulus. But its efforts can only achieve so much: one cannot 'do' *Kaizen* to another organization, let alone a country. Without its visionary, concerted and resolute adoption by significant national industry associations or top-level government departments, the JICA stimulus for translative adaptation is likely to wane. One must ask, 'If not now, when?'

The objectives of the AKA are ambitious and of consequence. Their widespread and quick achievement cannot be expected, and certainly not at the first attempt. The above findings should encourage perseverance by JICA and its partners throughout Africa: socio-economic development must remain an imperative for many years. *Kaizen* has an important and practical role to play. Dare we hope for both the *Kaizenization* of Africa and the Africanization of *Kaizen*?

Appendix 5.1. Entry Sheet for Organizations (AKA Secretariat 2018)

Entry Sheet for Organization

- i. Please describe the following points in maximum ten (10) pages of A4 sheet excluding attachments.
- ii. The entry organization should prepare the entry sheet.
- iii. The entry sheet should include data, measureable facts and graphs appropriately to make explanation convincing.
- iv. The entry sheet can be written in either English or French.

1. Information on Entry Organization

1.1	Name of Organization, Physical address (Head office/Factory) and Contact details
1.2	Year Founded
1.3	Capitalized at (US\$)
1.4	Annual Turnover (US\$)
1.5	Type of Business and main products/services
1.6	Number of Employees 1) regular employees 2) irregular employees
1.7	Number of Managers
1.8	Name of person in charge of nominated <i>Kaizen</i> activities
1.9	Organization Chart (Attachment 1)
1.10	Division of Duties (Attachment 2)
1.11	Current Quality Control System of Work (Attachment 3)

2. Information on Kaizen Activities

2.1	Level of <i>Kaizen</i> organization nominated a) company/institution, b) department/factory/division
2.2	Number and composition of managers/workers involved in the activities
2.3	History of <i>Kaizen</i> implementation a) year of <i>Kaizen</i> started, b) major process and approaches, c) detailed activities and results in 2017 and 2018

2.4	Objectives of <i>Kaizen</i> activities a) vision and strategies of the organization, b) clarity of the objectives and target of <i>Kaizen</i> activities, c) scope of <i>Kaizen</i> activities, and d) commitment of the management,
2.5	Process of <i>Kaizen</i> activities a) feature of participatory approach, b) continuity of <i>Kaizen</i> process, c) feature of scientific and data based approach, and d) efficiency of the activities and countermeasures.
2.6	Outputs/Outcomes of <i>Kaizen</i> activities a) measurable improvement of quality of products/services, b) measurable improvement of productivity of products/services, c) change of motivation of and incentives for workers, d) skill development of workers, e) change of teamwork and communication, f) change of working environment, g) reported and measured customers satisfaction, f) promotion of organizational social responsibility, i) spillover effects of <i>Kaizen</i> activities, and j) overall achievement of targets
2.7	Other appealing points of <i>Kaizen</i> objectives, process and outputs/outcomes, to be described, if any

3. Contact person in the *Kaizen* promoting institute/unit that nominate the organization

3.1	Name of the <i>Kaizen</i> promoting institute/unit and country
3.2	Name, position, and contact details (including e-mail address) of the person in charge
3.3	Relationship between the <i>Kaizen</i> promoting institute/unit and the nominee (how the institute/unit supports the nominee)

4. Other Attachment

In case of attaching photos, please limit the number to maximum of 10 photos.

Appendix 5.2. Entry Sheet for *Kaizen* Team/Circle (AKA Secretariat 2018)

Entry Sheet for *Kaizen* Team/Circle

- i. Please describe the following points in maximum eight (8) pages of A4 sheet excluding attachments.
- ii. The entry team/circle should prepare the entry sheet.
- iii. The entry sheet should include data, measurable facts and graphs appropriately to make explanation convincing.
- iv. The entry sheet can be written in either English or French.

1. Information on the Organization that the team/circle belongs

1.1	Name of Organization, Physical address (Head office/Factory) and Contact details
1.2	Year Founded
1.3	Capitalized at (US\$)
1.4	Annual Turnover (US\$)
1.5	Type of Business and main products/services
1.6	Number of Employees 1) regular employees 2) irregular employees
1.7	Number of Managers
1.8	Name of person in charge of nominated Kaizen activities
1.9	Organization Chart (Attachment 1)
1.10	Division of Duties (Attachment 2)
1.11	Current Quality Control System of Work (Attachment 3)

2. Information on *Kaizen* Activities

2.1	Position of <i>Kaizen</i> team/circle nominated within the organization and number and composition of team/circle members
2.2	History of <i>Kaizen</i> team/circle activities a) year of the activities started, b) major process and approaches, c) detailed activities and results in 2017 and 2018

2.3	Process of <i>Kaizen</i> team/circle activities a) relevance of theme selection, b) grasping of situation before <i>Kaizen</i> , c) continuity of activities, d) root cause analysis, e) problem solving analysis, f) development of countermeasures, g) effects of the activities, and h) standardization of <i>Kaizen</i> approach
2.5	Outputs/Outcomes of <i>Kaizen</i> activities a) measurable improvement of quality of products/services, b) measurable improvement of productivity of products/services, c) change of motivation of and incentives for workers, d) development of problem-solving skill, e) improvement of teamwork and communication, and f) spillover effects of the activities
2.3	Commitment of the management throughout <i>Kaizen</i> activities
2.4	Other appealing points of <i>Kaizen</i> objectives, process and outputs/ outcomes to be described, if any

3. Contact person in the *Kaizen* promoting institute/unit that nominated the *Kaizen* team/circle

3.1	Name of the <i>Kaizen</i> promoting institute/unit and country
3.2	Name, position, and contact details (including e-mail address) of the person in charge
3.3	Relationship between the <i>Kaizen</i> promoting institute/unit and the nominee (how the institute/units support the nominee)

4. Other Attachments

In case of attaching photos, please limit the number to maximum of 10 photos.

Appendix 5.3. Evaluation Criteria for Organization (AKA Secretariat 2018)

No	Features		
1	Objectives	<p>a) <u>Organizational vision and strategies</u></p> <ul style="list-style-type: none"> ● The organization has clear vision and strategies for its own proactive customer-oriented aspiration. <p>b) <u>Clarity of Kaizen activities</u></p> <ul style="list-style-type: none"> ● The organization has clear objectives of <i>Kaizen</i> activities and targets to be improved, which are relevant to the vision of the organization. <p>c) <u>Scope of Kaizen activities</u></p> <ul style="list-style-type: none"> ● The scope of the countermeasures identified is wide enough to create impact in the organization. <p>d) <u>Commitment of the management</u></p> <ul style="list-style-type: none"> ● The management presents clear commitment to promote <i>Kaizen</i> activities and performs concrete leadership throughout the activities. 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>0 /20</p>
2	Process	<p>a) <u>Participatory approach</u></p> <ul style="list-style-type: none"> ● Building effective systems to promote participation of people are incorporated in the activities. <p>b) <u>Continuous approach</u></p> <ul style="list-style-type: none"> ● <i>Kaizen</i> activities are frequently and continuously organized and the PDCA cycle is repeatedly applied. <p>c) <u>Scientific approach</u></p> <ul style="list-style-type: none"> ● Data are collected accurately and frequently and they are accumulated, properly analyzed and effectively utilized. <p>d) <u>Economical approach (efficiency)</u></p> <ul style="list-style-type: none"> ● The countermeasures are designed based on wisdom and internally available resources, instead of external resources mobilization. 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>0 /20</p>
3	Outputs/Outcomes	<p>a) <u>Quality of products/services</u></p> <ul style="list-style-type: none"> ● The activities create measurable improvement of quality of products/services verified with data of Key Performance Indicators. <p>b) <u>Productivity of products/services</u></p> <ul style="list-style-type: none"> ● The activities create measurable improvement of productivity of products/services verified with data of Key Performance Indicators. 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>0 /50</p>

No	Features		
3	<p data-bbox="209 640 235 811" style="writing-mode: vertical-rl; transform: rotate(180deg);">Outputs/Outcomes</p> <p data-bbox="252 227 644 252"><u>c) Motivation of and incentives for workers</u></p> <ul data-bbox="252 261 770 372" style="list-style-type: none"> ● Mechanisms to motivate staff to participate in and sustain the activities, such as reward and award, are established, and motivation of staff and incentives are increased. <p data-bbox="252 380 546 406"><u>d) Skill development of workers</u></p> <ul data-bbox="252 415 762 500" style="list-style-type: none"> ● Mechanisms to develop human skills such as training and education program are established, and skill/ competency are developed. <p data-bbox="252 508 562 534"><u>e) Teamwork and communication</u></p> <ul data-bbox="252 543 685 602" style="list-style-type: none"> ● Improved system to promote teamwork and communication is established and functional. <p data-bbox="252 611 640 637"><u>f) Safe and comfortable work environment</u></p> <ul data-bbox="252 645 770 731" style="list-style-type: none"> ● Any concrete improvement in work environment that brings benefit to workers is created by the activities of <i>Kaizen</i> . <p data-bbox="252 739 491 765"><u>g) Customers satisfaction</u></p> <ul data-bbox="252 773 767 867" style="list-style-type: none"> ● Concrete satisfaction of customers in value chain (quality of products/services, lower price, improved delivery and waiting times) is reported and measured. <p data-bbox="252 876 464 901"><u>h) Social responsibility</u></p> <ul data-bbox="252 910 770 970" style="list-style-type: none"> ● The organization is promoting social responsibility and appreciated by stakeholders in measurable manner. <p data-bbox="252 978 421 1004"><u>i) Spillover effects</u></p> <ul data-bbox="252 1012 779 1098" style="list-style-type: none"> ● The activities are spillovered to other departments in the organization or to business partners or to residence of employees. <p data-bbox="252 1106 758 1132"><u>j) Achievement of organizational objectives and targets</u></p> <ul data-bbox="252 1140 711 1226" style="list-style-type: none"> ● Overall achievements of <i>Kaizen</i> activities meet organizational objectives and targets, which are countable. 	<p data-bbox="799 261 923 286">1 2 3 4 5</p> <p data-bbox="799 415 923 440">1 2 3 4 5</p> <p data-bbox="799 551 923 577">1 2 3 4 5</p> <p data-bbox="799 654 923 679">1 2 3 4 5</p> <p data-bbox="799 782 923 807">1 2 3 4 5</p> <p data-bbox="799 910 923 935">1 2 3 4 5</p> <p data-bbox="799 1012 923 1038">1 2 3 4 5</p> <p data-bbox="799 1149 923 1175">1 2 3 4 5</p>	
4	<p data-bbox="209 1272 235 1392" style="writing-mode: vertical-rl; transform: rotate(180deg);">Presentation</p> <ul data-bbox="252 1277 764 1426" style="list-style-type: none"> ● Presentation (or description) is made within specified time (or volume) and completed in good balance. ● Presenter makes clear and impressive explanation as well as responses to questions/comments made by audience. 	<p data-bbox="799 1277 923 1303">1 2 3 4 5</p> <p data-bbox="799 1345 923 1371">1 2 3 4 5</p>	0 /10
Total			0 /100

Appendix 5.4 Evaluation Criteria for *Kaizen* Team/Circle (AKA Secretariat 2018)

No	Features		
1	<p data-bbox="209 517 232 654" style="writing-mode: vertical-rl; transform: rotate(180deg);">Kaizen Process</p> <p data-bbox="250 355 773 859"> a) Selected theme is relevant to priority of management and workplace issues. b) Situation before <i>Kaizen</i> is clearly described based on data and facts. c) <i>Kaizen</i> activities are frequently and continuously organized during the past two years. d) Logics and depth of root cause analysis (e.g., fishbone chart, repeating why, why, why) are adequate. e) Problem solving analysis is made by using adequate <i>Kaizen</i> tools. f) Development of countermeasures are discussed by team and all hands together. g) Effects of <i>Kaizen</i> activities are measured by using key performance indicator (KPI). h) <i>Kaizen</i> approach is standardized and applied to business processes widely. </p>	0/40	
2	<p data-bbox="209 1106 232 1277" style="writing-mode: vertical-rl; transform: rotate(180deg);">Outputs/Outcomes</p> <p data-bbox="250 876 773 1516"> <u>a) Quality of products/services</u> ● The activities create measurable improvement of quality of products/services verified with data of key performance indicators. <u>b) Productivity of products/services</u> ● The activities create measurable improvement of productivity of products/services verified with data of key performance indicators. <u>c) Motivation of and incentives for workers</u> ● Mechanisms to motivate the team/circle members to participate in and sustain the activities, such as reward and award, are established, and their motivation and incentives are increased. <u>d) Development of problem solving skill</u> ● Problem solving skill of the team/circle members is developed based on the activities. <u>e) Teamwork and communication</u> ● Improved system to promote teamwork and communication is established as a result of the activities. </p>	0/30	

No	Features		
2	<u>f) Spillover effects</u> <ul style="list-style-type: none"> ● The <i>Kaizen</i> activities are spillovered to and replicated by other teams/circles. 	1 2 3 4 5	
3	Commitment of the management <ul style="list-style-type: none"> ● The management understands <i>Kaizen</i> activities and supports them throughout the activities. 	1 2 3 4 5	0/5
4	Presentation <ul style="list-style-type: none"> ● Presentation (or description) is made within specified time (or volume) and completed in good balance. ● Presenter makes clear and impressive explanation as well as responses to questions/comments made by audience. 	1 2 3 4 5 1 2 3 4 5	0/10
Total			0/85

Appendix 5.5. Questionnaire as Distributed in Early February 2020

Dear XXX,

Sincere greetings to you in the New Year.

Your country participated in the Africa *Kaizen* Award conference in Tunisia in June 2019. JICA, the organisers of the event, and promoters of *Kaizen* in nine African countries, wishes to learn from the reflections of those who participated in the conference. We would be grateful if you would take a few minutes to complete the following six questions.

In each question you will be asked to choose a 'score' by marking one of the numbers from 1 to 7, where

1 = Unimportant/Weak and 7 = Highly important/Very strong

Question 1

How significant was each of the following in informing you about the JICA *Kaizen* initiative?

- | | |
|--|---------------|
| 1 Private Sector Consultancy | 1 2 3 4 5 6 7 |
| 2 Own reading of articles/internet | 1 2 3 4 5 6 7 |
| 3 Your national government agency or institute | 1 2 3 4 5 6 7 |
| 4 Direct information from JICA | 1 2 3 4 5 6 7 |
| Other (please specify) | 1 2 3 4 5 6 7 |
| Other (please specify) | 1 2 3 4 5 6 7 |
| Other (please specify) | 1 2 3 4 5 6 7 |

Question 2

What were the reasons your organisation/company engaged with the JICA *Kaizen* Awards?

- | | |
|--|---------------|
| 1 Employee safety, well-being and morale | 1 2 3 4 5 6 7 |
| 2 Domestic competitiveness | 1 2 3 4 5 6 7 |
| 3 International competitiveness | 1 2 3 4 5 6 7 |
| 4 An instruction from your political seniors/senior managers | 1 2 3 4 5 6 7 |
| 5 Quality of goods and services being produced | 1 2 3 4 5 6 7 |

6	Affordability of goods and services being produced	1 2 3 4 5 6 7
7	Delivery reliability of goods and services being produced	1 2 3 4 5 6 7
8	Speed of response to customer requests	1 2 3 4 5 6 7
9	Customer relations	1 2 3 4 5 6 7
10	Supplier relations	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7

Question 3 – for completion only by companies/teams that submitted applications for the Africa *Kaizen* Award

What motivated the preparation and submission of the application?

1	Curiosity	1 2 3 4 5 6 7
2	Possible trip to Tunisia	1 2 3 4 5 6 7
3	Desire to share learning with others	1 2 3 4 5 6 7
4	Pride in what the company/team has achieved	1 2 3 4 5 6 7
5	Give staff involved something to be proud of	1 2 3 4 5 6 7
6	Senior management instruction	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7

Question 4 – for completion only by companies/teams that submitted applications for the Africa *Kaizen* Award

What were the benefits of preparing the application?

1	Learning from the review of how we implement <i>Kaizen</i>	1 2 3 4 5 6 7
2	We saw gaps in what we had done and thus opportunities	1 2 3 4 5 6 7
	Conversations amongst staff involved	1 2 3 4 5 6 7
4	Widening awareness of <i>Kaizen</i> in the company	1 2 3 4 5 6 7
5	Senior management appreciation	1 2 3 4 5 6 7
6	Insights from the on-site assessment by the nominating agency	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7
	Other (please specify)	1 2 3 4 5 6 7

Question 5

What were the benefits of attending the African *Kaizen* Award conference in Tunisia?

- 1 Renewed personal motivation to continue with *Kaizen* 1 2 3 4 5 6 7
- 2 Insights and motivation taken back to your own organisation 1 2 3 4 5 6 7
- 3 Insights and motivation taken back to your wider community 1 2 3 4 5 6 7
- Knowledge gained from
 - 5 Presentations made by other applicants 1 2 3 4 5 6 7
 - 6 Poster presentations made by other applicants 1 2 3 4 5 6 7
 - 7 Presentations made by expert speakers 1 2 3 4 5 6 7
 - 8 Informal conversations during the conference 1 2 3 4 5 6 7
- Other (please specify) 1 2 3 4 5 6 7
- Other (please specify) 1 2 3 4 5 6 7
- Other (please specify) 1 2 3 4 5 6 7

Question 6

In the months since the Africa *Kaizen* Award conference in Tunisia, to what extent have you:

- Been more motivated to promote *Kaizen* in your own organisation? 1 2 3 4 5 6 7
- Promoted *Kaizen* outside of your organisation? 1 2 3 4 5 6 7
- Talked about the support of JICA? 1 2 3 4 5 6 7
- Used new tools or approaches in implementing *Kaizen*? 1 2 3 4 5 6 7
- Seen continued improvement in your organisation based on *Kaizen*? 1 2 3 4 5 6 7
- Other (please specify) 1 2 3 4 5 6 7
- Other (please specify) 1 2 3 4 5 6 7
- Other (please specify) 1 2 3 4 5 6 7

Please feel free to add any general comments:

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.....

Many thanks for completing this questionnaire. We greatly appreciate it. It will contribute to continuous improvement in the promotion and effective use of *Kaizen* in Africa!

Appendix 5.6. Proposed approach to standardizing examiner scores

A classic approach to standardizing is to use the mean and standard deviation to represent each original score as the distance above or below the mean (Martin 2020).

Let x_{ij} = Score by Examiner i for Nominee j
 \bar{x}_i = Mean of scores by Examiner i, across all Nominees
 σ_i = Standard deviation of scores by Examiner i, across all Nominees
 Y_{ij} = Standardized score by Examiner i for Nominee j

Then the standardized score of Examiner i for Nominee j is calculated by this formula:

$$Y_{ij} = (x_{ij} - \bar{x}_i) / \sigma_i$$
⁸

Note that in those cases where the mean of the scores given by an Examiner is greater than the score given to a particular Nominee the standardized score for that Nominee will be negative. This does not affect the ranking of Nominees. Ranking is based on listing the standardized scores of all the Examiners from biggest positive number to biggest negative number. The 'best' Nominees will have the biggest positive standardized scores.

8 After the discussion at the Evaluation Committee meeting, the following Normal Standard Scoring method is applied in AKA2020,. $Y_{ij} = (x_{ij} - \bar{x}_i) / \sigma_i * 10 + 50$.

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