

A comparison of the KPI forecast management model of Japanese companies and the Beyond Budgeting Model

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1. Introduction

Beyond Budgeting was introduced by Hope and Fraser in 2003 (Hope and Fraser, 2003ab). The Beyond Budgeting Model (BBM) is not a conventional single tool, but a thinking model including the Balanced Scorecard, Activity-based costing, Rolling Forecasts, and the relative improvement contract. It is also a change management model to make an adaptive organization in which front-line employees are empowered to cope with today's turbulent management environment.

Over ten years have passed since BBM was proposed but few Japanese companies have wholly introduced it. Only DISCO Corporation has abolished all use of a budget as far as I know (Shimizu, 2013).

On the other hand, Shimizu (2013) shows that some Japanese companies use the KPI Forecast Management Model to achieve the goal of BBM without eliminating a budget itself or functions of budgeting. A typical example is Kyocera Corporation.

This paper shows that some Japanese companies largely achieve the goal of BBM without wholly stopping budgeting through comparison of the features of BBM and the Kyocera Management Model. This is important because although budgeting is a useful tool and most companies cannot man-

age their operations without budgeting, many companies do not use it incorrectly. The object of this paper is to introduce a case in which a Japanese company performs the idea of Beyond Budgeting while using budgeting and to show how this is a hybrid management tool of budgeting and BBM.

2. The Beyond Budgeting Model

The Beyond Budgeting Model, which was already explained in Hope and Fraser (2003b), was clearly specified in Bogsnes (2009). He divided the concept of Beyond Budgeting into two categories of principles (leadership principles and process principles) as shown in Table 1⁽¹⁾.

As mentioned above, BBM is a thinking model. That is because these leadership principles focus on managers' way of thinking. A lot of management tools have been developed since the late 20th century. It is certain that the Balanced Scorecard (BSC) is typical of them. However, the introduction rate of BSC in Japan is lower than in Western countries⁽²⁾. I think that one of the reasons is that Japanese companies think of BSC as a tool rather than a thinking model to make essential strategies concrete. But however great a tool it is, it cannot produce an effect just by being introduced. To ensure the effective functioning of the tool, you need a proper guide to lead the tool in the right direction. Leadership principles enable an organization to understand a goal to attain and to move toward the goal on its proper judgment. The organization to attain the goal becomes a seamless network toward customers, and gains credit from them and rewards based on holistic performance, not each team's performance and individual's performance.

Process principles of BBM explain the tools of relative targets, the holistic approach in deciding rewards, rolling forecasts, and continuous planning. However, in order to make these tools work properly, leadership principles need to be set appropriately and need to penetrate the organization.

Rolling forecasts (RFs) and relative targets (RTs) are tools with distinctive features in BBM. RFs are updated quarterly (or monthly) and look four or five quarters (or twelve months) ahead. RFs enable managers to forecast

Table 1 The Beyond Budgeting Principles

Leadership Principles	
1. Customers	Focus everyone on improving customer outcomes, not on hierarchical relationships.
2. Organization	Organize as a network of lean, accountable teams, not around centralized functions.
3. Responsibility	Enable everyone to act and think like a leader, not merely follow the plan.
4. Autonomy	Give teams the freedom and capability to act; do not micromanage them
5. Values	Govern through a few clear values, goals, and boundaries, not detailed rules and budgets.
6. Transparency	Promote open information for self-management; do not restrict it hierarchically.
Process Principles	
7. Goals	Set relative goals for continuous improvement; do not negotiate fixed performance contracts. (Relative targets)
8. Rewards	Reward shared success based on relative performance, not on meeting fixed targets. (Holistic approach)
9. Planning	Make planning a continuous and inclusive process, not a top-down annual event. (Rolling forecast and continuous planning)
10. Controls	Based controls on relative indicators and trends, not on variances against plan. (Relative targets)
11. Resources	Make resources available as needed, not through annual budget allocations. (Rolling forecast and continuous planning)
12. Coordination	Coordinate interactions dynamically, not through annual planning cycles. (Rolling forecast and continuous planning)

Adapted from Bogsnes (2009), p.55

events in the future and to add or change actions as soon as possible when managers have the prospect of a gap between forecasts and plans. The essence of RFs is not only that companies forecast, but that they change a plan based on the forecast and keep a plan adapted to the realities of the situation. RFs that have a feedforward control system should be integrated into continuous planning.

RTs are not a preset fixed target, but a way of setting a target superior to the rate of return or the profit of competitors. This gives a company the ability to recognize changes in the environment and take the best action to cope with them. Also, it makes managers recognize that it is extremely important for a company not to focus on profits but to control both inputs and outputs.

Finally, the holistic approach induces employees to recognize that they have to improve the performance of their team or the whole company, not of an individual.

3. The situation regarding Beyond Budgeting in Japanese companies

As stated above, Beyond Budgeting was first introduced by Hope and Fraser (2003ab). They established a research institute called Beyond Budgeting Round Table (BBRT)⁽³⁾ and started to research a management model to build a vital organization capable of coping with changes in the environment. In addition to Hope and Fraser, many researchers have pointed out problems with budgets. For example, Hansen, et al. (2003, p.97) summarized the problems of budgets as follows:

- a) as time goes by, assumptions of budgets are typically outdated,
- b) budgetary controls impose a vertical command-and-control structure, centralize decision making, stifle initiative, and focus on cost reductions rather than value creation,
- c) the command-and-control structure and center-focused budgetary controls are incompatible with flat, network, or value chain-based organizational designs.

At first BBRT emphasized the problems of budgets as above and insisted that not using budgets was important in the first place in order to overcome those problems. In addition, it indicated that those problems can be overcome by setting the Balanced Scorecard at the core of the performance management system and using RFs and RTs when setting a goal. After that,

Bogsnes, in charge of the practice of Beyond Budgeting at both Borealis and Statoil, took over this thinking from BBRT and discussed the details about BBM (Bogsnes, 2009).

However, Libby and Lindsey expressed skeptical opinions about those problems of budgets based on the result of their investigation. Libby and Lindsey (2010, p.67) insisted as below:

- a) use of the fixed performance contract is much less,
- b) subjective considerations or allowances for non controllable events are treated sophisticatedly by managers,
- c) time spent on budgeting in the average in North America is considerably less than what advocates of beyond budgeting suggest and does not appear excessive,
- d) many firms utilize adaptive processes to adapt to unpredictable environments by revising budgets very frequently.

Lorain (2010) investigated BBM processes at Spanish companies from 2008 through 2009. As a result, she wrote, some companies “have implemented RFs in order to cope with changing environment” and “RFs are a good complement to the traditional budgeting process, but they cannot replace it” (Lorain, 2010, p. 202).

Investigations in Japan also showed some negative results on the point of Beyond Budgeting. For example, while evaluation including subjective control directly lessened the effect of improving planning functions by budgeting, it improved vertical communication functions by connecting evaluation with a bonus (Senoo and Yokota, 2013). Horii (2013) indicated that in rapid changes in the environment control by budgeting brought about organizational learning and that if changes in the environment upset the premise of budgeting, adhering to fixed targets strengthened the promotion of strategic actions. Yokota and Senoo (2011) and Kishida (2014) also said that Japanese companies did not think of the budgeting problem as significant, contrary to Hope and Frasers' assumption. That is the same result as existing research in North America and Europe.

Do these results mean that Japanese companies never take budgeting as a big problem? I do not think so. Budgeting problems pointed out by Hope and Fraser essentially lie in management control. Japanese companies know that. Therefore, they may have come to the conclusions above as a result of making various modifications to conventional budgeting.

Actually, as far as I know, only Disco Corporation in Japan has adopted Beyond Budgeting Model and has wholly abandoned budgeting. This company produces industrial machinery for IT machinery manufacturers. Due to rapidly changing supply and demand in this company, budgeting was useless to it. Even under these circumstances, Disco Corporation previously made a budget. That is because the Tokyo Stock Exchange has been calling for forecast information but this company frequently modified it by changes in the environment. As a result, the budget was made but wasn't controlled. Finally this company wholly abandoned budgeting in 2013.

NEC was also significantly influenced by the Beyond Budgeting Model. This company started to study BBM in 2006 and has been adopting it partly since then. Especially it conducts RFs on some KPIs and has a system in which new action is taken when there is a gap between a forecasted value and a fixed target in a budget (Shimizu, 2013, pp. 180-186). However, NEC has not abandoned budgeting until now and has not achieved higher performance by adopting BBM for the last few years.

Kyocera Corporation has its own management model called Amoeba Management System. Kyocera eliminated a budget and uses Master Plan (MP) instead, which consists of three-year, annual, and monthly plans. Like BBM, this model motivates people to achieve a good result by using a forecast. The organization is divided into small groups called Amoeba. They control themselves by Hourly Efficiency (HE) and their Income Statement for internal use. Kyocera makes a league-table of HE to encourage competition among amoebas. Each amoeba leader tries to make profits and improve its HE. It is hardly linked with employees' bonuses. These actions are extremely similar to the twelve principles of Beyond Budgeting. By using the Kyocera

management model (KMM), Kyocera has never been in the red since its foundation in 1959 and has made top-level profit in the electric industry for the last ten years. So I will compare KMM revealed in the studies with BBM and consider the similarities between the two models in the next section.

4. Leadership principles in KMM

(1) Values principles

Kyocera has very strong centripetal force. Its core is Kyocera philosophy. Its corporate motto is “Respect the Divine and Love People” and its management system is based on the bonds of human minds. Kyocera also has twelve management principles as shown in Table 2.

Table 2 The Twelve Management Principles in Kyocera

1. Clearly state the purpose and mission of your business. Set high objectives that are noble, just and fair.
2. Set specific goals. Once targets are set, share them with all employees.
3. Keep a passionate desire in your heart. Your desire must be strong and persistent to penetrate into your subconscious mind.
4. Strive harder than anyone else. Work steadily and diligently, one step at a time, never relenting in tedious tasks.
5. Maximize revenues and minimize expenses. Measure your inflow and control your outflow; don't chase profit, but let it follow your effort.
6. Pricing is management. Pricing is top management's responsibility: to find that one point where customers are happy and the company is most profitable.
7. Success is determined by willpower. Business management requires a persistent, “rock-piercing” will.
8. Possess a fighting spirit. Management requires a more combative mentality than any material art.
9. Face every challenge with courage. Be fair and never deceive others.
10. Always be creative in your work. Innovate and improve continuously. Today should be better than yesterday; tomorrow, better than today.
11. Be kind and sincere. Business is based on partnerships and must bring happiness to all parties.
12. Always be cheerful and positive; hold great dreams and hopes in the pureness of your heart.

Source: <http://global.kyocera.com/inamori/management/twelve.html>

These principles are the basis for all the employees' behavior and penetrate deeply into all the employees in such a way that they begin to understand the content of principles in training for new recruits and follow the principles when making decisions every day. As mentioned later, the KMM is based on trust but trust is not formed without the Kyocera philosophy.

(2) Organization, Responsibility, and Autonomy principles

Next I will explain trust and accountability given to the organization structure and the organization of Kyocera. Kyocera is composed of functional organizations. Production organizations and sales organizations are divided into small, autonomic, and empowered organizations, which are called Amoeba. Production and sales amoebas are made up of 5 to 10 people each.

Each amoeba has an income statement and works as a profit center. However, the goal of each amoeba is to maximize profits of the whole company, not of an individual, and to contribute to make big profits.

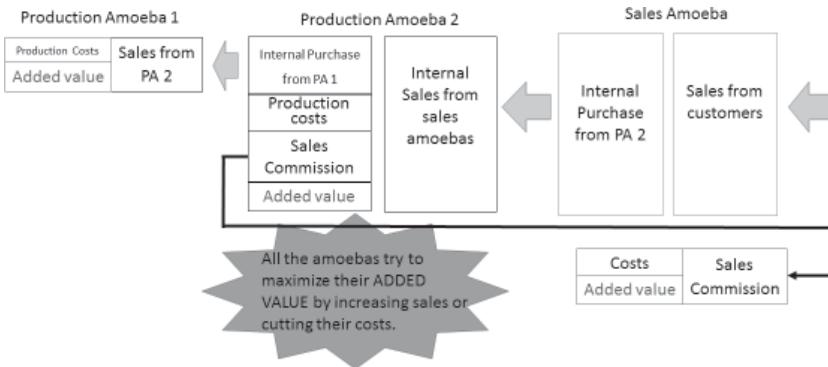
Figure 1 shows the mechanism of the management of sales amoebas (SA) and production amoebas (PA). At first, a sales amoeba accepts an order from a customer and passes it to a production amoeba 2 (PA2). The transfer price between SA and PA2 is the price that this SA receives from a customer. Next, production amoeba 2 also places an order with PA1. PA1 and PA2 negotiate the transfer price so that both might get profits.

After deciding the transfer price, every amoeba considers its own cost and working hours in order to make profits and Hourly Efficiency (HE) maximum. For a sales amoeba, the selling price equals to the transfer price to PA2. PA2 pays the sales commission, e.g. 10% of total sales, to a sales amoeba. A sales amoeba tries to make profits, added value by controlling its costs. PA2 and PA1 also try to make profits by controlling the costs. I will explain this system and HE later.

All the amoebas know the market price of their products. If sales amoebas set a lower price on the products they would get many orders but it would be possibly unprofitable. In the contrary case, sales amoebas could not

get orders in the first place. So all the amoebas do not try to set the price or transfer prices in their favor because it does not contribute to maximize profits of the whole company. Kyocera has a pricing policy that all the amoebas try to find the price that makes both customers (not only external customers but also internal customers and other amoebas) and Kyocera (or an amoeba) happy. Kyocera, therefore, stops employees from making suboptimized decisions.

Figure 1 Sales Amoeba and Production Amoeba



All the amoebas take the optimum actions to maximize corporate profits like this. The amoebas are empowered to do so. For example, the leaders of production amoebas even have the authority to make an additional capital investment when they judge that the investment can contribute to long-term profits.

HE and the income statement of each amoeba are disclosed at the review meeting. And at the meeting an amoeba's leader has to explain what he/she did in order to maximize corporate profits and what the result was like. HE is also disclosed to all the employees with a league table.

5. Process principles

(1) Amoeba's income statement and HE

Table 3 is a sample of the income statement made by production amoebas. HE is set as a kind of relative target. HE of all the amoebas is calculated and appears on the league table. An improvement in HE is not connected with bonuses of amoeba members and leaders but they make efforts to improve HE and to raise their ranking in the league table as if playing a game.

Table 3 Income Statement and Hourly Efficiency in production amoebas

	Items	Amounts
① = ② + ③	Gross Production	6,500,000
②	Production Outside	4,000,000
③	Total Internal Sales	2,500,000
④	Total Internal Purchases	2,200,000
⑤ = ① - ④	Net Production	4,300,000
⑥	Deduction (Costs)	2,400,000
⑦ = ⑤ - ⑥	Added Value	1,900,000
⑧	Total Working Hours	35,000 hours
⑨ = ⑦ ÷ ⑧	Hourly Efficiency	54.28
⑩ = ⑤ ÷ ⑧	Production per Hour	122.85

Adapted from <http://global.kyocera.com/inamori/management/amoeba/system.html>

By the way, the income statement of the amoebas does not include labor costs. If labor costs are included in it, amoeba leaders may not select older employees as members. That is because Kyocera applies the seniority wage system in which the older the employee, the higher the salary. It is not good for Kyocera not to select senior members since it focuses on “the bond of human minds”.

So Kyocera calculates only total (company – wide) labor costs and “Labor Costs Per Hour” (LCPH) of the whole company and gives this information to

all the amoebas. An amoeba makes a comparison between the company-wide LCPH and its HE, and if its HE is larger than the company-wide LCPH, it means that this amoeba contributes to company-wide profits.

(2) Master Plan and Forecasted Income Statement – Planning and control principles

Kyocera makes a three-year Master Plan (MP) on the rolling system. Based on the three-year MP, it makes an annual MP and then deploys it to a monthly MP.

The most remarkable feature in the Kyocera management system is the way of realizing the monthly MP. I will explain it by using Table 4.

What action will amoeba leaders take if they find that the forecasted profits may not reach ones in the MP? First they probably try to increase the sales volume. However, if final customers do not place an order, the sales volume will not increase. Increasing the production volume without orders just causes an increase in inventories. Therefore, production amoeba leaders often visit their customers with sales persons, and take an order by research-

Table 4 Forecasted Income Statement of Production Amoebas

	MP	Plan	difference	Actual	Action
Gross Production					
Total Internal Sales					
Net Production					
Deduction (Costs)					
...					
...					
...					
Added Value					
Total Working Hours					
Hourly Efficiency					

Adapted from MIYA, H. (2003) *The Theory of AMOEBA Management*, Toyokeizai-Shinpousha, p.93.

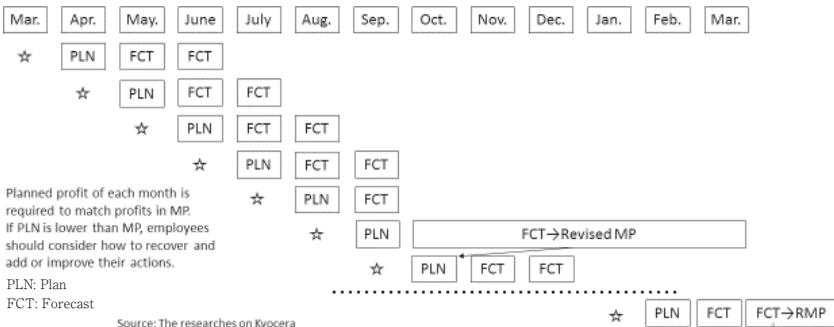
ing customers' needs and making suggestions for them. Still, if the profit target is not achieved, the amoeba leaders try to reduce even costs included in the MP and aim to achieve the profit target.

This income statement is reported at the monthly performance review meeting. Amoeba leaders and senior managers are required to give an explanation in detail about the performance for the previous month and the plan for the current month. They are always required to produce the best figure and their minds are also encouraged to do so by Kyocera philosophy. If an amoeba leader sets a low target and makes the income statement easy to realize, his or her intention will be exposed to other leaders and managers at the performance review meeting and he or she will be urged to modify the income statement. This is also connected with the transparency principle.

(3) Forecasting system

This is a forecasting system in Kyocera. As shown in Table 4, the income statement of each amoeba has an MP and a plan. Amoeba leaders also have to forecast sales and costs for the next two months. As shown in Figure 2, this system is a three-month-rolling forecast although there are a few exceptions. In July, an amoeba does not forecast the income statement in October because it has already started to forecast the income statement of

Figure 2 Rolling Planning in Kyocera



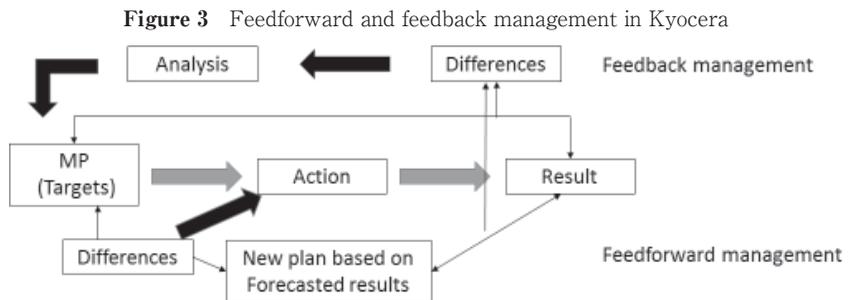
the second half year. After predicting IS of the second half year, an amoeba sets a revised MP.

(4) The integration of feedforward and feedback management

The Kyocera system consists of both feedforward and feedback management. First, each amoeba forecasts and makes a new plan to accomplish its MP. This is feedforward management. Amoeba leaders compare the profit in the MP with the forecasted one and if there is a gap between them, new action plans to accomplish the profit target in the MP are considered and implemented. Second, at the end of every month, Kyocera does feedback control by comparing actual and new planned profits and the target profits in the MP. The important thing is to review the difference between forecasted and actual results because in the case of Kyocera, new planned profit is not simply forecasted but a kind of new planned number.

As shown in Figure 3, Kyocera integrates a feedback system with a feedforward system into one management system. In other words, based on the comparison of MP and forecasted and newly planned amounts as well as the comparison of the MP and actual amounts used in the feedback system, the structure of making the plan over newly is incorporated into the management system.

This is the extremely important point. A forecast is simply a forecast. As pointed out in BBM, the purpose for forecasting is to see changing environ-

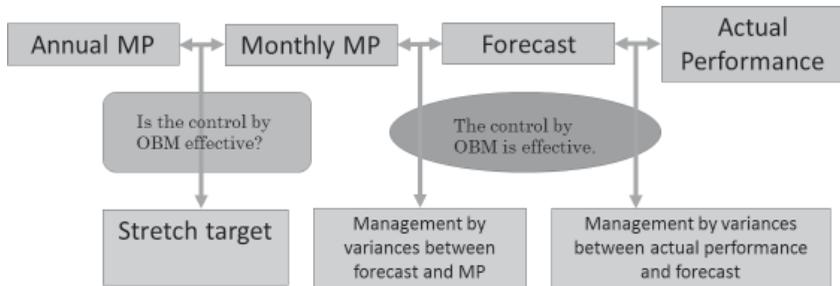


ments and reach the target. The Kyocera management system has a process that a forecast is not only made but also a new plan is made or the MP is modified to fill the gap immediately if a gap between forecasts and targets is seen. Without this process, it seems to be difficult to use a forecast effectively.

(5) Transparency – Open book management

Amoeba managers have to attend the performance review meeting at the end of every month and give an explanation in detail about performance results of that month, changed plans of the next month, and forecasts of the following two months. Because a lot of amoebas conducting similar businesses like this exist in Kyocera, if an amoeba sets planned profits of the next month too low, it is exposed to the other amoebas.

Figure 4 Open book management in Kyocera



Original source; [Kazusa, 2010, p.84]. Added by SHIMIZU, T. from researches on Kyocera.

And even if an amoeba leader is able to set planned profits of the next month low by gaming, it will be revealed to the other amoeba leaders that the planned profits are too low at the end of the next month.

Also, in Kyocera it is not accepted that actual profits not only fall below but also exceed planned profits modified monthly. That is because planned profits based on a forecast do not have stretch.

Thus, amoeba leaders have to always set the best targets because all of

the information is disclosed to their peers as well as to their bosses.

However, although amoebas' HE and IS are disclosed, there is little relationship between their HE and IS and amoeba members' bonuses. Bonuses are decided by the profits of the whole company. So the reward system is a kind of holistic system.

6. Similarity between the Kyocera amoeba management and 12 principles of Beyond Budgeting

(1) Leadership principles

Table 5 shows similarities between the Kyocera management system and leadership principles by Bogsnes (2009) that I described above.

Table 5 BBM and Kyocera Leadership Principles Compared (1)

Leadership principles	Bogsnes (2009) p. 55	Kyocera system
1. Customers	Focus everyone on improving customer outcomes, not on hierarchical relationships.	Kyocera focuses on the outside market, or customers.
2. Organization	Organize as a network of lean, accountable teams, not around centralized functions.	Each amoeba is a lean and accountable team.
3. Responsibility	Enable everyone to act and think like a leader, not merely follow the plan.	Each amoeba leader acts and thinks to make profits by their decision making.
4. Autonomy	Give teams the freedom and capability to act; do not micromanage them.	Each amoeba has the freedom and capability to act.
5. Values	Govern through a few clear values, goals, and boundaries, not detailed rules and budgets.	Every employee acts based on the Kyocera Philosophy.
6. Transparency	Promote open information for self management: do not restrict it hierarchically.	HE is opened to all the employees. Forecasted and Actual IS are also opened at the performance review meeting.

First, both BBM and Kyocera focus on customers rather than the inside of the organization (Customers principle). Second, both BBM and Kyocera are managed by a lot of small divided units. In Kyocera, they are called amoebas, each of which has responsibility for HE and profits (Organization principle). Third, similar to BBM, in Kyocera each amoeba leader makes decision so that his or her amoeba will earn a profit, takes action on the decision, and has a responsibility for the result of the action (Responsibility principle). For this reason, as in BBM, each amoeba at Kyocera is empowered to make decisions and take action (Autonomy principle). An amoeba is controlled according to the principles called Kyocera philosophy as a source of the organization culture, not the rules formulated in detail. Also, in both BBM and Kyocera, values are key. For example, Kyocera philosophy has a large number of contents (Value principle). Finally, transparency is important in both BBM and Kyocera. At Kyocera, HE and forecast-based plans are distributed and discussed at the various meetings. Thanks to this, other amoeba leaders and middle managers are able to know whether the plan has an appropriate stretch or not. That is how Kyocera is able to avoid gaming on setting a goal.

(2) Process principles

Next, I will compare the Kyocera management system and the BBM Process principles as shown in Table 6. It shows that the management tools used in Kyocera match the Beyond Budgeting principles.

At Kyocera, the HE of each amoeba is disclosed to all the employees as a league-table. Therefore, an amoeba leader makes an effort to improve his/her HE and raise the rank in the league-table. This is a counterpart of BBM's relative goals for continuous improvement as a Goals principles. However, profit targets of amoebas are basically fixed targets and Kyocera as a whole does not have relative targets for the rank in the industry.

Regarding rewards, at Kyocera HE and profit targets are not directly connected to a bonus of each amoeba leader. Similar to BBM, the bonus depends on company-wide profit amounts, although of course an amoeba

Table 6 BBM and Kyocera Process Principles Compared (2)

Process Principles	Bogsnes (2009) p. 55	Kyocera system
7. Goals	Set relative goals for continuous improvement; do not negotiate fixed performance contracts.	Each amoeba sets a target of HE and Added Value. HE is compared among amoebas. But Kyocera as a whole does not have relative targets.
8. Rewards	Reward shared success based on relative performance, not on meeting fixed targets.	HE and Added Value of each amoeba are scarcely linked with employees' bonus.
9. Planning	Make planning a continuous and inclusive process, not a top-down annual event.	Each amoeba uses a certain type of Rolling Forecast and Rolling Plan.
10. Controls	Base controls on relative indicators and trends, not on variances against plan.	Each amoeba is controlled by the HE and variances against Master Plan and Forecast.
11. Resources	Make resources available as needed, not through annual budget allocations.	Each amoeba makes resources available as needed.
12. Coordination	Coordinate interactions dynamically, not through annual planning cycles.	Coordination with each amoeba is interactive.

leader who achieves outstanding performance gets a promotion.

Also, Kyocera makes a forecast three months ahead and reviews the plan of the following month monthly in order to achieve MP. This just means flexibly remaking a plan on rolling forecasts and is a counterpart of BBM's Planning principle. Control by relative HE at Kyocera is a counterpart of BBM's Controls principle. By checking the difference between original MP and a new plan on forecasts and the difference between the plan and actual performance, control is exercised to reach annual targets. If resources not included in the original MP are needed, an amoeba leader is able to use the resources consulting a manager, similar to BBM's Resources principle. Finally, similar to BBM, coordination at Kyocera is exercised by a close inter-

action between production amoebas and sales amoebas, and each amoeba aims to realize MP.

7. Conclusions

I have explained how Kyocera is a case of BBM in Japan by comparing the Kyocera management model (KMM) and BBM. As shown in Table 5 and 6, it is clear that the KMM practices all the principles of BBM. However, Kyocera has never learned Beyond Budgeting. Mr. Inamori has aimed to keep achieving higher performance since the establishment of Kyocera in 1959. For this purpose, the entire staff has employed measures by trial and error to strive for higher performance. Consequently the present management system was completed. In the process Mr. Inamori expressed the word “budget” as “Master Plan”. That is because he had also been aware well of budgeting problems pointed out by BBRT.

He thought that all the employees should continuously have a flexible plan by using a forecast in order to obtain the goal. Also, he empowered front-line managers, or amoeba leaders, and inspired them to strive for maximization of amoebas’ profits. He plainly explained knowledge about management accounting as HE and the internal IS. In this way amoeba leaders understood that maximization of profits in each amoeba directly led to maximization of profits in the whole company. Amoeba leaders increase sales, reduce costs, and plan to use working hours effectively by themselves. Management tools to do these are counterparts of various process principles as shown in Table 6.

One of the noticeable features of KMM is that it keeps planning and coordinating functions of budgeting in MP. In this way, Kyocera does not absolutely abolish the budgeting system. KMM is a sophisticated model case that overcomes the problems of budgeting while using budgeting, not abolishing budgeting. Companies can avoid many disruptions that might happen by abolishing budgeting by using this management model.

However, the KMM does not consist entirely of management tools. In

order to carry out these management tools properly, that is, to set a stretch target, aim for the optimization of the company, eliminate various gamings, and form an organization able to cope with changes in the environment, Mr. Inamori created the Kyocera philosophy and taught all the employees that they should do right as humans. All these management tools cannot work correctly without the strong values of the Kyocera philosophy.

The KMM was created in Japan, geographically and culturally so far from Northern Europe, or the home of Beyond Budgeting⁽⁴⁾. Nevertheless it is surprising that these two systems are quite alike in content. This seems to give a clue to the universal solution to overcome problems associated with a budget. Whether a company has a budget or not, and whether it uses BSC and ABC or not, it is able to conduct better management. The case of Kyocera shows that.

However, not so many Japanese companies use the Kyocera management system and even the companies adopting amoeba management do not necessarily have the same form of use as the basic amoeba management. A certain company adopting amoeba management in the hospitality industry and Japan Airline have the income statement of each amoeba but do not use HE for its management. The companies individually use an effective device for allocating indirect costs. The important thing is not to adopt a management tool but to build up the organization culture aiming to achieve a goal through the organization. The tool should be coordinated according to the idea of each company.

As mentioned before, Japanese companies do not have much dissatisfaction with the budgeting system. That seems to be because Japanese companies made different improvements to the budgeting system. The Kyocera management system is considered to be a case of those improved systems.

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Notes

(1) 12 principles shown by Bogsnes are rearranged by BBRT afterwards and changed as follows. The Modified Beyond Budgeting Principles

Change in leadership	Change in processes
<i>Governance & Transparency</i>	<i>Goals & rewards</i>
1. Value – Bind people to a common cause; not to a central plan	7. Goals – Set ambitious medium-term goals; not short-term fixed targets
2. Governance – Govern through shared values and sound judgment; not detailed rules and regulations	8. Rewards – Base rewards on relative performance; not on meeting fixed targets
3. Transparency – Make information open and transparent; don't restrict and control it	<i>Planning & controls</i>
<i>Accountable teams</i>	9. Planning – Make planning a continuous and inclusive process; not a top-down annual event
4. Teams – Organize around a seamless network of accountable teams; not around centralized functions	10. Coordination – Coordinate interactions dynamically; not through annual budgets and planning cycles
5. Trust – Trust teams to regulate and improve their performance; don't micro-manage them	11. Resources – Make resources available as needed; not through annual budget allocations
6. Accountability – Base accountability on holistic criteria and peer reviews; not on hierarchical relationships.	12. Controls – Base controls on fast frequent feedback; not on budget variances.

(Olsen, 2014, p.18)

In the modified Table, leadership principles are arranged and reclassified into Governance & Transparency and Accountable teams.

- (2) According to some researches (Aoki · Sakurai, 2003; Otomasa, 2003; Liu, 2004; Morisawa et al. 2005) conducted from 2002 to 2005 in Japan, the rate of utilization of BSC ranged from 4% to 19%.
- (3) Now BBRT is a shared learning network within Beyond Budgeting Institute established in 2013.
- (4) Hofstede (1980), which is a rather old paper, studied the 40 countries' positions in the indicators of "the power distance" and "the uncertainty avoidance". Consequently in Northern European countries (Denmark, Sweden, Norway, and Finland) the power distance was small and the uncertainty avoidance was weak. In Japan, the power distance was large and the uncertainty avoidance was strong.

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