THE KOMATSU WAY 2012

KOMATSU
INTRODUCTION

“The KOMATSU Way is the cornerstone of Komatsu’s operations globally, which is the commitment to quality and reliability in order to maximise our corporate value. I define The KOMATSU Way as how we share our overall expectations of our employees to achieve our business objectives, both locally and internationally. The most important thing to remember is that our ultimate goal is to make sure we have all 2000 of our people working towards the same outcome, using the appropriate methodology for our organisation.

Sean Taylor, Managing Director KAL

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CHAPTER 1
The Komatsu Way
I. The KOMATSU Way

1. Introduction

Meitaro Takeuchi, founder of Komatsu, was a man of foresight. He defined Komatsu’s guiding principles as: overseas expansion, quality first, technology innovation and human resource development 90 years ago. These principles are still ingrained in Komatsu’s DNA today.

In the course of Komatsu’s development and growth, Meitaro Takeuchi’s successors have built on the company’s strengths, the beliefs that support these strengths, and the basic attitudes and patterns of behaviour which translate into action.

Together, these form the KOMATSU Way and we want to share them among all employees within the Komatsu Group, globally.

The philosophy behind The KOMATSU Way is to study the facts of the past in order to gain new knowledge and perspectives in how we do our business. Our vision is to see The KOMATSU Way passed on to everyone working within the Komatsu Group; not only those working for Komatsu today, but also to future generations, across all our workplaces and organisations around the world, ranging from management, to research and development, production, sales, service and administration.

2. What is The KOMATSU Way?

The cornerstone of Komatsu’s management lies in commitment to quality and reliability in order to maximise its corporate value. We define our corporate value as the total sum of trust given to us by all our stakeholders – our employees, our shareholders, our customers and everyone else with whom we do business – as well as the community at large. While honouring Corporate Social Responsibility (CSR) in our conduct, at Komatsu we are committed to strengthening our corporate governance and Monozukuri (teamwork) competitiveness as the source of our strength.

By introducing a brand management philosophy based on this commitment, we are working to change the mindset of Komatsu Group employees from that of a manufacturer and supplier to that of the customer. By taking this customer-centric approach, we aim to strengthen Komatsu Group’s organisational fundamentals and facilitate improved human resource development across all our activities.
1) Strengthening corporate governance

The core source of corporate governance is the Board of Directors. Recently, the Komatsu Group has taken a number of important steps to further improve our corporate governance. In addition to having a reduced number of Board members, we have also appointed external directors and auditors to enhance the transparency of our management processes. A significant amount of time and effort at Komatsu Ltd Board meetings is spent on the management policies and issues surrounding Komatsu; this is indispensable in improving the quality and reliability of our total product offering.

Of course, the importance of the Board of Directors is not limited to Komatsu Ltd, but is equally applicable to other Komatsu Group companies around the world. Therefore, we will continue to further strengthen our corporate governance on a group-wide basis.

Those in executive management positions at our subsidiaries and divisions have been asked to thoroughly understand and implement the contents of the next section of this document, entitled “The KOMATSU Way: Management”.

Commitment to quality & reliability in order to maximise corporate value

Construction, mining & utility equipment & industrial machinery

Medium-term management plan
- Main issues regarding management
- Main issues regarding business

Continuously upheld sense of values, attitude & behaviour
- Perfecting corporate governance
- Strengthening the development of human resources on a global basis
- Aim at continuous growth to extend the “genba-ryoku” of each employee

Komatsu’s code of conduct
- Rules which KLTD, management & employee should follow in business society
- Declaration as responsible corporate citizen

Policy & principle
- Rules which KLTD, management & employees should follow in business society
- Declaration as responsible corporate citizen

Important field for Komatsu’s CSR
- to enrich life, to train human resources, & to develop with society

Many principles & international standards
2) Reinforcing Monozukuri (teamwork) competitiveness

At Komatsu when we speak about Monozukuri (which literally means “manufacturing”), we don’t mean only activities on the plant floor in a narrow sense of the term. Rather, we define Monozukuri as teamwork activities performed in our value chain.

These comprise not only our internal divisions, such as development, production, sales, services and administration, but also our suppliers, distributors and other partners. In this area of Monozukuri we believe the following “Seven Ways of KOMATSU” form the core of The KOMATSU Way.

Monozukuri: Seven ways of KOMATSU

a. Commitment to Quality and Reliability
b. Customer Oriented
c. Defining the Root Cause
d. Genba (Workplace) Philosophy
e. Policy Deployment
f. Collaboration with Business Partners
g. Human Resource Development

Note: The Monozukuri section describes the importance of all employees in non-sales divisions in thinking about our customers from a customer-centric point of view and taking action – just like employees in sales who are in direct contact with customers. The Brand Management section elaborates on our desired attitudes and approaches to our customers on the part of our distributors and marketing people.

a. Commitment to quality and reliability

By leveraging our history of efforts and expertise built up in the Japanese market with stringent quality requirements, at Komatsu we place top priority on quality above all other matters. We will never compromise in quality as we move into the future. We will continue our technology innovations by constantly aiming for ever-higher goals to ensure the highest levels of quality and reliability.
b. **Customer oriented**
By valuing the opinions of and feedback from our customers, we will continue to manufacture the products that customers want to own. By listening to them sincerely and thoughtfully, we will deepen our customer relationships and become their partner of continuing choice.

c. **Defining the root cause**
By clearly defining processes, from the initial occurrence of a problem to its real cause, in all stages ranging from product planning to following up on operating conditions in the field, we always work to find and fix the root cause of a problem as early as possible in the process, in order to prevent it from recurring.

This is our approach to prevent defects and problems from recurring. While we respond individually to problems which have occurred at workplaces, in plants or on customers’ jobsites, at the same time, we must also review the entire range of our work processes. We trace back to the root cause, identify the root cause and implement countermeasures in order to prevent the recurrence of the problem.

This approach is not limited to hardware-related problems (such as changes in design drawings and equipment), but equally applies to the workflow of administrative operations so that we can review each process, guarantee its quality and improve the entire range of processes and systems.

d. **Genba (workplace) philosophy**
Komatsu’s Genba (workplace) philosophy constitutes the foundation of our policies, strategies, improvement plans and other vital initiatives. Therefore, in our workplaces, it is essential to emphasise clear communications, ensure instructions, labels and other signs send a clear, concise message, and make information “visible” to everyone.

Fundamentals of our “Monozukuri” competitiveness derive from our “Five-Gen” principles, defined as:
- Genba (actual workplace)
- Genbutsu (real thing)
- Genjitsu (real situation)
- Genten (origin)
- Kenzai-ka (making things apparent)

Everyone working within Komatsu Group should thoroughly understand these five principles, and practice them at all times.

e. **Policy deployment**
When Komatsu Group’s senior management decides on new management policies, they need to be transmitted promptly throughout the company through the following flow: divisions to departments to individual employees around the world. Each level needs to understand its respective roles, identify problems and tasks, decide what to do and then carry out its decisions on its own initiatives.
f. **Collaboration with business partners**
From product development right through to sales and service, our divisions, including research and development, production, sales and product support, along with our business partners from around the world must work together to solve problems and improve our customer focus, share knowledge, and contribute to mutual growth as “All Komatsu”, all the while fulfilling our social and community responsibilities.

![Collaboration Diagram]

- Komatsu corporate values are evaluated through purchasing and using productions
- A customer is the only existence which can give Komatsu an income in response to Komatsu’s corporate values

Our vision is to become indispensable to our customers

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g. **Human Resource Development**
At Komatsu Group, we recognise it is our human resources (that is, our employees) who support sustainable corporate growth. Therefore, our employees are our most valuable corporate asset. Through human resource development and educational programs on a global scale, we will work to increase our employees’ “Genba-Ryoku” (improvement capabilities) and continuously develop their professional careers.
3. Brand Management

At Komatsu Group, we have introduced a brand management strategy; we have done this in order to facilitate our future business expansion based on our “Monozukuri” competitiveness principle, and to enable us to better address the dramatic changes in the our global business environment.

Through our brand management, we focus our attention on customers. They are the most important group of all our stakeholders, because they purchase and use our equipment and services, evaluate our corporate value and pay for it accordingly. Without our customers, we are nothing.

Although we will elaborate on our brand management approach later, it can be summarised as simply being activities in which “we increase the degree of our customers’ dependence on us and become their partner of their continuing choice”.

Our brand management approach will be introduced to all Komatsu Group companies worldwide. Under this approach, we will pay the utmost attention to our customers. To achieve a situation where we are seen by customers as their ideal supplier, we at Komatsu will have to think with our customers, working alongside them by ensuring we can “visualise our customers’ goals”. Only then can we judge the necessary levels of support and partnership we can offer.

To do this, Komatsu as an organisation must accumulate a wide range of new knowledge and understanding. We need to be able to “visualise our customers’ goals” at all times. Only as we contribute to our customers’ achievement of their goals through the utilisation of all Komatsu’s products, services and management knowledge will we continue to be selected as their preferred partner of choice.

Therefore, it is essential for all Komatsu Group employees to thoroughly understand our strengths, beliefs and values, as described in the three pillars of The KOMATSU Way:

1) Strengthening Corporate Governance
2) Reinforcing ‘Monozukuri’ Competitiveness
3) Brand Management

As a Komatsu employee it is vital that you practice these three pillars in your work on a daily basis. It is equally important that you constantly check to see if you are indeed practicing them on a daily basis and adjust the way you work if you find anything you are doing that is not in accordance with The KOMATSU Way.

Having said that, we believe that The KOMATSU Way also needs to adapt and change in response to changes in the business environment, as well as continuing to respect the diversity of Komatsu Group employees, around the world. By sharing The KOMATSU Way with all of you, we are convinced that Komatsu Group will be able to further enhance its success and grow into the future.
The remainder of this document is divided into the following chapters:

**Chapter 2:** “The KOMATSU Way: Top Management”, designed for senior management of Komatsu Group companies

**Chapter 3:** “The KOMATSU Way: Monozukuri” designed for all Komatsu Group employees

**Chapter 4:** “The KOMATSU Way: Brand Management” which outlines the customer oriented marketing now being promoted by Komatsu Group marketing departments

While we have also compiled The KOMATSU Way by line of work, division and by administrative department, the “Monozukuri: Seven Ways of Komatsu” is incorporated in all of them. In terms of implementing The KOMATSU Way our intends to see further progress at each Komatsu Group workplace around the world.

CHAPTER 2
Senior Management Officers
II. The KOMATSU Way: Senior Management Officers Approach

In addition to managing their operations while keeping in mind Corporate Social Responsibilities, senior management of Komatsu Group divisions and companies must always have a firm understanding of what is happening in our workplaces (Genba), understand societal changes and develop a sense of managing our various operations through a well-balanced approach, based on their analyses of workplace data and feedback.

In taking this well-balanced approach to management, senior management officers are required to manage their operations to not only improve performance, but also to emphasise contributions to the entire Komatsu Group, including distributors and suppliers. In other words, management should be consolidated by considering all ways in which they can collaborate with our partners.

To this end, senior management officers need to always think about what roles they are expected to play; they should act accordingly by also considering information gained from communications with a wide range of stakeholders, including as employees of Komatsu Group companies, distributors and suppliers worldwide, as well as investors and customers. Through their actions, senior management officers are also expected to work to develop human resources who are capable of doing business worldwide.

For the Komatsu Group to further grow as a global company, constantly improve its corporate fundamentals and produce results, we should pay special attention to the following four principles.

1) Senior management’s familiarity with workplace (Genba)
   Communicating specific, easy-to-understand explanations of the current conditions, future goals and strategies for Komatsu Group employees, suppliers, distributors and shareholders by senior management having a firm understanding of the workplaces for which they are responsible.

2) Policy deployment
   Top-down policy communication and implementation to the lowest levels of the organisation, through effective empowerment of middle management levels.

3) Collaboration with partners
   Ensuring collaboration among internal divisions (development, production, sales, etc) as well as with distributors and suppliers

4) Human Resource Development
   Clear definition to all Komatsu Group employees of The KOMATSU Way principles, so that they are maintained on a global basis, and to ensure human resource development across all our global operations.
The following five are especially important guidelines for senior management officers; they are the essence of The KOMATSU Way for senior management.

1) **Energise the functions of board of directors**

The Board of Directors is the only organisation within Komatsu Group companies that can decide important management matters. It is an essential part of our corporate governance to hold Board meetings regularly and energise and empower each company’s Board. To this end, please pay special attention to the following matters.

- Hold Board meetings as stipulated in the regulations of your company or your jurisdiction’s corporate legislation. Example: Hold at least every three months (Japanese Corporate Law).
- Clearly define the objectives of each meeting and have a clear agenda. Example: Set standards for agenda items, the amount of investments, etc.
- Ensure each agenda item is properly discussed during Board meetings. Example: Ensure discussions cover all views, including objections, until the meeting reaches unanimous agreements and then carry out the course of action determined by the Board. Report all discussions and resolutions.
- Seek opinions from part-time directors who represent the shareholders. Reason: Part-time directors need to participate in Board meetings from an equity standpoint.
- Ensure you have strong and independent auditors. Reason: Audit functions are an essential fundamental of good corporate governance.

2) **Take the initiative in communicating with all our stakeholders (especially employees)**

Always communicate in your own words as senior management, at the very least the current conditions and future directions of your company to all stakeholders. It is an important part of your accountability as senior management.

Take every possible opportunity to communicate to as many employees that you are responsible for as possible, because top-down communications must be initiated by you. Similarly, you must disclose relevant information to other stakeholders, such as customers, shareholders (Komatsu Ltd in most cases), distributors and suppliers, to fulfill our duty of accountability as a company.

Our stance on investor relations is described below. Please follow the examples. The aim of investor relations is to maximise our corporate value, which can be defined as the total sum of trust given to us by society and all our stakeholders. Our basic approach should be a fair and timely disclosure of information to all our stakeholders.

- Senior management must emphasise direct communication with stakeholders.
- Eliminate surprises by means of appropriate and timely information disclosure to those outside of the Komatsu Group
- Share with those inside the Komatsu Group the future course that the Group should take and the tasks involved in achieving that future course.
3) Compliance with legislation covering the business community

It is a basic tenet of sound management to ensure compliance with the all legislation covering the business community in your jurisdiction, and in particular to pay close attention to occupational health and safety legislation and environmental legislation. In the case of any behaviour or course of action which violates legislation concerning the business community, ignorance is no excuse for senior management.

However, it is also virtually impossible to assume no violations will ever occur. The most important thing is to never attempt to hide or cover up any error, violation or illegal activity when you learn about it. Correct it immediately, and take the opportunity to develop and implement preventive measures. It is also essential to disclose the information immediately to the appropriate authorities and statutory bodies.

It is important to engage in regular and frequent communication with all employees for which you are responsible, to remind them of the importance of compliance and create a corporate climate or culture in which they feel comfortable to report any violation to you and their managers. When any violation is reported to you, please identify the true cause(s) and take effective action to prevent them happening again. It is important to prevent violations from recurring by improving the systems or procedures in place that allowed them to occur and/or your organisational structure.

Every president of Komatsu Group subsidiaries is required to sign their name on the Five Basic Rules of Compliance and Message from the President Concerning Occupational Health and Safety, and display them prominently in your company premises. You must set an example for your employees.

In addition, every president of our divisions and Komatsu Group companies must encourage all distributors and suppliers to our value chain to promote compliance on the part of their employees with the legislation covering the business community and to ensure their conduct in accordance with their corporate social responsibilities. A few words of wisdom: “Just tell them you can’t do it, when you are not allowed to do it”.

All Komatsu Group employees are required to clearly decline any requests by customers, supervisors, colleagues or others to act in a manner which would result in their personal gain to the detriment of other individuals or organisations, and entail the risk of violating the law. All Komatsu Group employees must conduct themselves in accordance with the laws of their jurisdiction at all times. At any time an employee is asked to act illegally or unethically, it is essential to explain clearly: “I cannot do anything which breaches of the law”.

This is the most important matter for each and every Komatsu Group employee to thoroughly understand; to quote our management guideline “Our corporate value is the total sum of trust given to us by society and all our stakeholders”. We must ensure individual compliance. No one make the excuse of “I didn’t know about the law.”
If you are not sure about the relevant legislation regarding a particular situation, check with your local Komatsu Group legal counsel. As a senior Komatsu Group management officer, it is also important for you to learn about the law as it applies to your area of operations. Please refer to Komatsu’s Code of Worldwide Business Conduct and its requirements concerning Compliance.

- Comply with the rules of the Business Community.
- Respond that “we can’t” for a request that is illegal or unethical.
- Customer/Komatsu distributor/Compulsory inspection-certified company
- Compulsory inspection of specified vehicle
- Labour Standards Inspection Office
- Accident
- Request for falsified inspection/Acceptance of customer’s request for falsified inspection
- Production of falsified record/Filing of falsified record with local labour standards inspection office
- Falsified record discovered during verification by the local labour standards inspection office
- Indictment of Komatsu Group subsidiary for violation of the Labour Standards Law/Suspension of compulsory inspection business
- Loss of social trust/damage to Komatsu Group’s reputation

**Case study**

Some time ago, a Komatsu Group subsidiary experienced a violation of the law relating to the compulsory inspection of a Komatsu mini wheel loader. The customer who owned the mini wheel loader was legally required to have it inspected every year, submit the report to the relevant industry association and keep the certificate in a safe place. The customer failed to get the machine inspected at the required time. When he learned that someone from the industry association was coming to check his machine in order to ensure that it had been inspected as required, the customer made an urgent request to our distributor to issue a false certificate to the effect that it had in fact been inspected by them. Because of the long-term business relationship with the customer, our distributor felt unable to decline his request by saying: “We cannot do it because it violates the law”. The violation, including the issuing of a false certificate by the Komatsu Group subsidiary was discovered, resulting in the suspension of the machine inspection business of the Komatsu distributor — and great damage in that market to our reputation. Any violation of relevant laws and regulations has the potential to result in a significant loss of social trust, not only for Komatsu but also potentially our customers. Social trust (reputation) is indispensable for us to be able to continue our business. Senior management must place top priority on compliance with relevant laws and regulations, engaging at all times in transparent and sound management.
4) **Never delay responses to risks**

There is no management without risks. Since we have no means of avoiding risks completely, it is very important to thoroughly check for any hidden risks. As soon as you become aware a risk that may impact on Komatsu Group, you must report it to the relevant departments and external organisations in an appropriate and timely manner NEVER put off a prompt response to any risks as soon as you become aware of them. We believe that most cases of corporate misconduct arise due to management delaying its responses to risks.

When we change our production plans, our plants commonly don’t use some procured parts. and therefore store them for the next production run of models which may require them. When some parts for non-standard specifications or intermittent production are not used during a fiscal year, they are treated as surplus inventories or non-essential and non-urgent inventories and included in our assets. However, if we continue to keep them in the hope that they will be used someday, storage-associated retention costs will keep growing, together with corresponding risks. But as writing off a considerable amount of non-performing assets in one fiscal year can have a negative impact on our financial results, and on management, it is important to determine appropriate rules of disposal, know the value of nonessential and non-urgent inventories on our balance sheets, and dispose of them while the corresponding risk applies equally to overseas plants. If you fail to deal with non-performing assets because they are a small risk (that you hope will go away), you may be putting off necessary actions, which may result in much higher risks at a later date. It is essential that you establish procedures for how long you retain non-performing assets (for example, 6 or 12 months, or perhaps two years) depending the nature and use of parts, then dispose of them when the specified period of retention is over. In this way, you can cut down risks which start off small, but have the potential to grow significantly.
Example:

Tips on how to manage risk:
- Never put off responses to risks
- Dispose of non-performing assets accordingly & work to prevent recurrences
- Assess non-performing assets every 6 months
- Continue to monitor potential non-performing assets
- Establish disposal standards to prevent the problems from recurring
5) **Keep thinking about your succession program**

To foster the growth of your successors is an important job that only you can do as senior management. The basics of sound management must be passed on to your successors. It is also essential to work with them daily as part of their training to be your successors. Develop your succession plan, keep more than one candidate in mind, if possible, and let them compete. You need to train your successors in a planned and programmed way, so you have people to whom you can “pass the baton” in full confidence.

In our overseas subsidiaries, expatriate senior management is expected to respect local customs and culture, foster the growth and development of senior managers in the host country, select top management candidates, and ultimately pass on management to selected local senior management. Please ensure they experience and fully understand Genba and foster their decision-making capabilities to identify operational problems. Please also foster their growth in a planned manner so that they share Komatsu ways of management and values, as a life-long employee who gains a wealth of work experience, fulfilment and satisfaction at Komatsu over the years.
CHAPTER 3
Monozukuri (Teamwork)
III. The KOMATSU Way: Monozukuri

1) Commitment to quality and reliability
2) Customer oriented
3) Defining the root cause
4) Genba philosophy
5) Policy deployment
6) Collaboration with business partners
7) Development and vitality of Human Resources

1) Commitment to quality and reliability
We will continue to place top priority on quality over everything else. We will not compromise on this commitment into the future, using our history and knowledge which we have gained from participation in the Japanese market over many years, where customers are very demanding of high quality standards.

a. Target DANTOTSU (unique and unrivalled)
At Komatsu Group, we define DANTOTSU (unique and unrivalled) products as those that have one or two overwhelming superior advantages with which competitors won’t be able to catch up within three to five years. It is important for us to determine what aspects of our products we will make DANTOTSU while retaining some existing product features (foregoing some improvements for the sake of DANTOTSU improvements); the aim is to take advantage of our strengths, while ensuring we selectively focus on areas where we can excel. We need to continue developing products and systems which our customers will judge as being number one or two in the world. A “Target DANTOTSU (unique and unrivalled)” project means all those involved set high goals, take on the challenges of their goals in their respective work domains, and continue technological innovation.

We can only develop DANOTSU products by converging our group-wide capabilities of not only production and development operations, which are directly involved in making products, such as equipment, engines and electronic parts, but also sales and product support product operations.

In summary, we must place top priority on quality over everything else, make no compromise and develop DANTOTSU products and systems.
Example: Development of electric motors for Hybrid hydraulic excavators

Never give up, but instead continue to take on the challenges of high targets, even when development takes a long time.

Our Hybrid Excavator team developed Komatsu-original technologies, by integrating Komatsu’s core technologies (developed by our predecessors in mechanical, electric and material engineering over the years) with new leading-edge technologies.

- Desire to take up challenges of high targets
- Passion to succeed by all means
- Collaboration among design, manufacturing engineering and production engineers
- High voltage-resistant technology/Technologies to develop lower inertia and compact motors
- New technology of power electronics/Water-cooling technology/ Lubrication and low-noise technologies to increase speed of operation

Components are all made in-house:

- To ensure reliability and durability needed for construction equipment
- To design an optimal system for construction equipment
- To keep the same appearance as conventional models

b. Remember: It is others who determine the quality of our products – and your work.

Although we might believe that we have produced good products, our customers won’t purchase them unless they can see value in them. In our internal work within Komatsu, when we submit our work, such as value-added analytical materials and reports, they need to be redone if those who receive them don’t give back a good evaluation. Instead of being satisfied within ourselves of our work, we need an objective evaluation. We must accept customers’ evaluations and feedback humbly, identify those areas which need improvement, and continue to develop products and services to meet and exceed their expectations.

c. There will be no technological progress, if we blame our customers for quality problems or defective work

We receive a very wide range of demands and requirements from our customers and our other partners in the industries. In response to their demands, we need to understand what they are really telling us and respond accordingly; frequently we will find a seed of technological innovation in their requirements.

In the past, as part of our efforts to meet our customers’ requirements, our predecessors in Komatsu Group have worked as a team with other concerned departments and developed new technologies, products and services, provided them to customers, satisfied them and gained their trust. We must listen to customers’ opinions honestly and with open minds. We can’t say, for example, “The way they have used their equipment is wrong,” or “Their demands are too much and totally impossible,” and make honest efforts to improve, our progress stops there. We must avoid behaviours which block improvement or innovation. We need to continue our efforts to develop and provide products and systems designed to meet customers’ requirements and expectations.
d. Consider all stages ranging from raw materials to assembly as a single process

We must always think about total optimisation, not just partial optimisation. When we reassess our work process, we are inclined to do so merely within the scope of activities for which we are responsible. However, if we reassess our work process by expanding their scope to include other departments and colleagues, and understanding the entire work process, we can expect far better results. By expanding the range of your thinking, getting other departments before and after your work process involved, and understanding the entire process, you can implement more effective improvements as a whole. It is important for us to make all problems “visible” by identifying bottleneck areas, which worsen the work flow, or by identifying time-consuming areas due to over-reliance on manual processes, and improve the entire work process by implementing the most appropriate improvements as a whole.

Case study

This case study shows how we improved work efficiency by analysing the work process and work contents and eliminating Muda (Waste), Muri (Strain) and Mura (Inconsistency).

Pre-delivery inspection in Australia

Conventionally, our Australian distributor engaged in machine modifications in Australia in order to meet local and customer specifications. As this process required disassembling parts, welding and painting, it typically took 20 to 30 days. Following collaboration between the distributor and the plant which supplied this equipment, the entire process was reviewed and it was decided that the plant would install the region-specific parts. As a result, the distributor no longer needed to carry out this modification work, considerably shortening the delivery lead-time to customers.

e. Don’t waste your time regretting defects or mistakes which have already occurred, but focus your efforts on developing preventive measures

No matter how much you may regret defects or mistakes, they will not go away. Rather, refresh your thoughts and implement countermeasures to ensure those defects or mistakes do not spread. Next try not to make the same mistakes, by reviewing the relevant structures or systems, designs, evaluation standards and so on, and standardise all of them. It is important that everyone understands these revised new procedures, implements them thoroughly and ensures that they are followed by all involved. When product defects arise, consider them as a great opportunity for improvements by following the PDCA cycle, focusing efforts on preventing those problems from recurring and implementing these improvements for future products. At the same time, work to develop a system that prevents defects from recurring.

“Standardisation” means reassessment of systems, technical standards, manufacturing standards for jigs, work rules and so on, or setting new standards. As a result of standardisation, all involved can comply with these requirements, carry them out, and minimise inconsistent quality in different areas of work.
Case study

Serious Quality Problem (SQP) Sheet: Quality Control Culture in an A3-size paper
Based on our “Five Gen” principles (Genba (workplace), Genbutsu (real thing), Genjitsu (real situation), Genten (origin) and Kenzaika (making things apparent)), we have developed the SQP Sheet. This allows you to check on the process of investigating the cause(s), developing countermeasures, confirming quality, prevention of problems from recurring, etc in order to solve quality problems. This A3 sized sheet incorporates procedures of investigation according to the “Eight Steps of QC (Quality Control) Story”, along with space for countermeasure descriptions. The SQP Sheet allows you to see the entire process at a glance so that you can easily check for any inconsistencies or anomalies or see if something is missing. In addition, the SQP Sheet is designed to help you arrange your procedures for implementing the process logically. It is an easy-to-use sheet incorporating our predecessors’ valuable experience.

2) Customer Oriented
We appreciate our customers’ opinions and work to manufacture products designed to ensure customer satisfaction. By listening to customers honestly, openly and humbly, we develop a closer relationship with them and become a business partner of choice on an on-going basis.

This Monozukuri section explains to all employees of different departments within Komatsu the importance of taking action by thinking about our customers and what they want, just like our sales colleagues who are in daily direct contact with them. The following Brand management section is intended to outline to our distributors and marketing colleagues our essential attitudes to our end-user customers.

If we stop the assembly-line, to supply spare parts is the priority
a. **Komatsu works to become an “indispensable partner of our customers”**

We work together with our customers for their business growth, not only carrying out sales activities for our products but also to offer high value-added services and systems, as well as a diverse range of proposals. We are working to develop a relationship with our customers, in which we become their “true partner” growing together with them. In other words, we become an indispensable partner of choice on an on-going basis by increasing the degree of their dependence on us.

b. **Customers first. Place top priority on solving customers’ problems**

Customers are special. By purchasing and using our products, they evaluate and add to Komatsu’s corporate value. Accordingly, it is customers (and nobody else) who give income to the Komatsu Group in return for our products and services. To build and keep a good relationship with customers, we need to solve their problems and concerns as quickly as possible. It is important for everyone within Komatsu Group around the world – from research and development, production, sales, product support, and administration – as well as from our distributors and suppliers, to engage in their daily work by thinking about our customers based on this customer-first attitude.

## Case study

When a customer’s machine breaks down, stopping the operation on the jobsite, the local distributor’s service personnel are required to do their utmost to repair it and restarting the customer’s jobsite work in as short a period of time as possible. If the necessary parts are not available at the nearest spare parts centre, the plant which supplies these parts must co-operate by putting top priority on the earliest possible delivery of the part to the customer’s job site.

Furthermore, when a delivery date for a new product and urgently needed spare parts conflict with each other, the supplying plant must place top priority on the delivery of the spare parts to minimise downtime of the customer’s existing machine on the jobsite. To ensure that distributors’ sales personnel and service technicians can meet customers’ expectations on the frontline of business, all concerned departments must work together to support them in the background. By demonstrating the integrated capabilities of the Komatsu Group, we can gain customers’ trust on a continuing basis.
c. Don’t turn back away from an unpleasant situation; instead learn to cope with it to find a solution
Whenever you have any problems with your customers, it is important to talk with them face to face as soon as you possibly can. When you meet with them with an honest, upfront and sincere attitude, and confirm their requirements and true intentions, you will find solutions. On the other hand, if you appear reluctant to talk with them face to face and continually postpone or avoid a meeting, the problem will only get bigger. Don’t keep your worries to yourself, but instead consult with your managers, colleagues and peers. Through a prompt response, you can convert a problematic issue into an opportunity to increase the customer’s trust.

Case study
Whenever issues related to product defects, delayed delivery or money-related problems, such as late instalment payments, become complicated, the repair and recovery of the relationship will require a lot of effort and time, because those issues are directly related to customers’ business. In the worst case, they could develop into a customer no longer doing business with Komatsu. This is a very tough situation for you, but it is important not to hesitate and instead have the courage to talk you’re your customers face to face and with a sincere, honest and open attitude.

d. Discipline for delivery
It’s very natural for us to keep the date of delivery we have promised to customers. Customers make their work plans based on the delivery date, so if delivery is delayed, the completion of their work might be delayed and they might incur a loss as a result. For this reason, when you are asked by customers to deliver products or services within a short period of time, don’t gloss over the delivery date at that moment, but consult with the appropriate people or departments first. It is important to respond with the earliest possible date through a concerted, co-operative effort. Please ensure you treat delivery times with the priority they deserve.

This attitude also applies to our daily work. It is important for us to work according to a schedule and keep to deadlines. To this end, we need to consider the entire process and required time for a project, from planning to completion and accordingly determine what to prepare, the order and ways of implementation, etc. When a given job involves collaboration with others as a group, it is important to develop execution plans for the entire project. All involved need to have discipline to ensure timely delivery. Control the progress of your own work, complete your work by the scheduled date, and give your work to people in the next stage without fail. In addition, because there is the possibility of delay in delivery resulting from unforeseen incidents or events in some stages, the group leader and those responsible for different stages must check on the progress and conditions periodically and quickly respond to incidents as they happen.
Case study

Presetting PC200 specification options: Shortening the shipment period from 2 months to 2 weeks by shifting from “full choice” to “preset” menus

Customers’ requirements vary widely when specifying a machine. Because of this, the possible number of permutations and combinations increases considerably using the so-called “a la carte” method, which means an extended time to manufacture the required parts. In some cases, this has resulted in delayed delivery to customers. To improve the situation, we have gone through customers’ requirements, sorted out the three most commonly requested specification options and produced them in advance. As a result, we have been able to shorten the delivery period of finished products, thereby preventing the delayed delivery problem from recurring.

3) Defining the root cause

By clearly defining the root cause of all processes responsible for the occurrence of defects throughout the entire production process, from product planning to machine operations by customers, we can then fix these root causes in order to prevent the problems from recurring.

This is always our approach to prevent defects and problems from recurring. While we respond to problems at workplaces, plants or customers’ jobsites individually where they occur, we also review the entire range of work processes to trace back to the root cause, identify the cause(s) and implement countermeasures in order to ensure no recurrence of the problem(s). This approach is suitable not only for hardware products (changes in drawings, facilities and the like) but also in reviewing methods and workflows of administrative operations – with the aim of improving administrative processes and systems so that you can ensure the quality of their work.

a. Work to fill the gap between ideal and current environment

It is important for all employees to not become content with the current achievements of their work, but to set higher goals and continue their efforts (challenges) to improve their achievements. When setting the goals, it is important to picture the ideal achievement and the framework. Through our strong efforts to realise our ideal achievements, we can get closer to these ideal achievements step by step. When more employees demonstrate this work attitude, workplaces will be revitalised, promoting the individual growth of employees and organisational capability of our workplaces.

Meanwhile, when we draw an image of ideal achievements with high goals, we need to leverage our leading-edge original technologies and an extensive range of knowledge. In this light, there may be cases in which we need to form a group with a few people, generate ideas, draw a picture of ideal achievements and share it with everyone concerned.

b. Repeat “Why?” five times

This is our approach to identify the real cause(s) of problems. As we repeat the asking of why a given problem has occurred, we go back to the upper stages of our workflow, identify the real cause(s), implement countermeasures and prevent the problem from recurring. “Five times” is a
symbolic expression of this process of bringing experts’ knowledge and technologies together and looking into the root cause of the problem.

When we repeat the asking of why, it is very important not to blame those involved with the problem. Preventive measures are designed to find the defects in rules, procedures, processes, tools and so forth and improve them – but never to blame the people involved.

When we further look into our preventive approach following the occurrence of problems, we ultimately come to an approach based on the prevention of problems before they occur, or preventive maintenance. Now when developing new work or products, it is becoming more important for us to establish the process right back in the planning stage of new products or work, so we can discuss and review preventative measures in advance by extensively incorporating specialised technologies.

c. The next stage of the process involves your customer

This should be quite natural for sales and service people, who are in direct contact with customers on a daily basis, but should not be limited to sales and service people. Everyone in Komatsu Group wants customers to love using our products for as long as possible, as we support our customers’ businesses and satisfy them.

However, “customers”, as we define the term, are not just limited to end-user customers of our products. Everything we do is passed on to someone else, either internal or external to our organisation. It is important for us to ensure that everything we do has a “full guarantee” from us as individuals, and that we take responsibility for its quality when we hand it on to the next person in the process. When the recipient of your work (whether internal or external to Komatsu Group) is happy to receive it and is satisfied with its quality, each and every one of us will grow, and the Komatsu Group as a whole will grow to enjoy further external trust. Let us engage in all our work with the commitment and pride of professionals.

4) Workplace philosophy

Basic information for policies, strategies, improvement plans, etc is found in all our workplaces. It is important for us to pay close attention to our workplaces and visualise the information related to the conditions and signs of change.

The basics of our Monozukuri philosophy come from our “Five Gen” principles. We need to thoroughly understand and demonstrate these five principles:

i. Genba (workplace)
ii. Genbutsu (real thing)
iii. Genjitsu (real situation)
iv. Genten (origin)
v. Kenzaika (making things apparent)
a. Go to the actual workplace (genba), and see the real thing (genbutsu) to ensure thorough understanding of the real situation (genjitsu)
Every operation has Genba. Things, information and functions are found there. To correctly understand what is actually taking place, we need to check the actual workplace, see the “real thing” through our own eyes and carry out fact-finding activities. As a result, we become able to clearly identify the problem(s), develop countermeasures and implement them. When we cannot come up with appropriate solutions to a problem, it is important to go back to the origin or basics, identify the problem, and share it with others (making things apparent). If you have only a little experience at an actual workplace, you won’t have the capability to identify the problem(s). Therefore, if you only read a report in the office you are likely to make a mistake in judging the true situation. In particular, those who have only a little experience at our workplaces are encouraged to go to the premises or plant, so that you can acquire the capability and perspective to recognise abnormal from normal conditions.

b. Build the “visual” workplace
“Visualisation” is a method to manage the progress of our work on a real-time basis and discover any problems at an early stage on the Genba (workplace) level. As this is a means for the genba to realise or discover problems, building the “visual” workplace so that problems are not hidden is important.

It is also important to always keep the conditions “visible” in a clear manner so that you can tell abnormal from normal conditions or see the signs of emerging abnormality at an early stage. This also becomes the basis of communication. For all involved to discover problems at an early stage and discuss solutions promptly, they need to share the same information at the same time.

c. Substantiate your talk with data.
This is our approach for “fact-based management,” that is, management based on data and facts instead of merely experiences or hunches. To correctly understand facts and evaluate them, we need accurate numerical and linguistic data based on the “actual workplace,” “real thing” and “real situation.”

When we explain a situation to other people using analytical results of objective data, they can better understand the facts, problems and countermeasures. However, depending on the work contents and conditions, we need to keep a good balance between “experiences and hunches” and “fact-based analyses” for decision-making and action.
Case study

Analysis of market demand by marketing operation

It is important for us to constantly gather market demand-related data and KOMTRAX data and look into their correlation. If you don’t rely on data, but only your thinking, you will be making a mistake. Indexes for the projection of demand by region: To project market demand for construction equipment in a given region, our planning departments have produced graphs by incorporating a variety of economic indexes, commodity prices, foreign exchange rates, demand and sales of major products, and KOMTRAX machine operation data. As a result of “visualising” this information, our senior management, and those in charge of business planning, have become able to project market demand scientifically and thereby develop sales strategies more easily than before.

d. Safety first and 5Ss*

It is a fundamental of our business that everyone must always maintain awareness of safety, keeping the workplace well organised and clean to create a safe work environment. Many employees work in production and product support, jobs which require mechanical handling of products. It is important to ensure safety is a priority, without injuries and accidents.

This approach also applies to office work. Offices with well-organised filing of documents facilitate smooth work because no time will be lost for looking for job slips, reports and other necessary things. Otherwise, there will be more things that we need to look for or cannot find, which will inevitably lead to problems.

Some people are good at organising tools and papers, others are not. However, it is important to decide on the ways to organise things and that all involved follow them. The 5S’s are the first step for safety, so everyone should commit to their implementation to create a safe and efficient work environment.

The 5S’s stand for
• Seiri-Sorting
• Seiton-Setting in order
• Seiso-Shining
• Seiketsu-Standardising
• Shitsuke-Sustaining

e. Real insights are born from hard work

Unless we look for the causes of problems, take proper countermeasure and act accordingly, no real insights will emerge. Simply put, we cannot get any good results unless we work hard. Inventions and innovations are not made overnight. When you think about any issues by applying your full knowledge, experience and logic to the fullest extent, people around you, such as your managers and colleagues, will be impressed by your efforts and offer their advice and suggestions to you. This will result in great approaches and ideas. Think of proverbs like “No pain, no gain” and “If at first you don’t succeed, try again”.

f. **Using a computer? Think first!**  
Computers are just another workplace tool. Rather than blindly using the results from computers, all employees must use them by applying your own evaluation criteria, substantiated by your technical knowledge and experience, plus your own insights. Be sure you understand the essence of what you are doing, and properly consider the validity of the computer output results.

In tandem with the advancement of Information and Communication Technology (ICT), personal computers (PCs) have become indispensable for our daily work. Although they offer us high-speed data processing at great precision, they are blind to any mistakes in inputting data or setting computation protocols. You need to apply your own evaluation capability based on technical knowledge and experience. When you perform complex calculations, you need to validate them by also using other means. This does not only apply to technical calculations by our R&D teams; when you use PCs for scientific prediction of market demand by means of statistical processing, you also need to evaluate the results from an alternative perspective or perform multilateral evaluations.

g. **Refine your five senses**  
This approach primarily applies to the areas of production and service operations. Each employee must refine their senses through training and experience so that they can determine the condition of a piece of equipment through touching, listening, watching and even smelling them through their vibrations, temperature, odour, noise and colours. In terms of technical skills, your speed of judgment can be slowed if you think about technical matters. To respond reflexively, you need to learn them through your five senses. For The KOMATSU Way of monozukuri (manufacturing), highly trained and skilled master mechanics are essential. This approach also applies to our people in other operations, such as sales and administration. You need to be able to catch and respond to nuances and subtle actions on the part of customers and others with whom you are meeting and working. Develop high professionalism in your work.

**Sales:** Understand your customers intimately by visiting their jobsites, learning about construction methods, required functions and performance of machines and so forth. By learning about construction management and accumulating knowledge and experience, will refine your sensibilities. Once equipped with knowledge and insights, you can understand customers’ concerns and develop solutions through our planning and technical capabilities by collaborating with other departments.

- **Accounting:** To acquire the ability to “read between the figures” in accounting reports and documents, you need to go to workplaces for training, understand their operations and accumulate experience. At plants, you need to visit temporary warehouses – even those outside of the plants – to check nonessential and non-urgent inventories and depots for defective parts. Check the figures in your books against the types of parts and their volume in stock. Through actual observation and hearing, you can build up your auditory capability and experience. With these capabilities and hunches, you can then evaluate the validity of the books you are looking at.
• **Production:** Thanks to technological advances in measuring instruments, today we use sophisticated instruments to measure the precision of parts and determine the performance of machines. Nevertheless, we cannot rely on instruments to check everything. Through their five senses, master mechanics can find mistakes in setting the conditions of machine tools, abnormal conditions of parts and components, and factors that cause mechanical problems in machines.

• **Machinists:** Learn to discern cutting conditions from the metal chips. Observation and experience can teach you about cutting conditions from the length, thickness, curls and colours of these chips.

• **Welders:** Listen and watch to monitor the quality of welding. You can determine welding quality by arc conditions in the electrode, impact noise, colours and shape of the bead.

• **Assembly staff:** Parts for assembly are no good if they cause pain or irritation when touching them. You can determine the quality of precision-machined parts by being fully aware of surface roughness, unfinished machining, scratches and sharp edges.

**h. A manager’s role is to direct, praise and discipline workers and make decisions**
Supervisors and managers in work places are required to think about the safety of workers, instruct them and foster their professional growth, be responsible for work plans, appreciate the value of communication, enjoy respect from workers and demonstrate leadership.

Good managers, supervisors and leaders are respected by workers for their sincere care for their workers, being always ready to help them. Therefore, as a manager, it is important for you to maintain a safe work environment by ensuring everyone is alert and aware at all times, while maintaining high levels of morale. It is also important for you to promote communication with your workers whenever possible, be aware of their general health, praise them for their accomplishments, alert them to mistakes and explain how to avoid making them again, and help them understand the cause(s) of problems so that good team spirit will be fostered at their workplaces. At the same time, you are expected to make the necessary decisions when you face difficulties in work or with workers’ professional growth.

Of course, this description of the “ideal supervisor” also applies to other departments, including administration. Make the work environment one of teamwork through communication and mutual understanding.
i. **Genba (workplace) is full of improvements opportunities**

By observing our workplaces, we will still notice a number of waste, strain and unevenness. When we review our own work processes, we will find plenty of room for improvements. When everybody thinks about the seeds of improvement (for example, removal of wasteful work) on a daily basis, we should be able to change our work processes and structure for the better.

If you think specifically about possible ways to improve your work environment on a daily basis, you will find you can generate plenty of ideas, such as eliminating duplication of work, or mechanising frequently repeated work. When we make steady progress in improvements, we can advance the quality of our work and add value, resulting in the further growth of the Komatsu Group.

5) **Policy deployment**

When senior management spells out a change in management policy, it is promptly delivered to divisions, departments and employees around the world. All employees, at each level, are responsible for recognising their roles, and to interpret the policy, define their tasks and carry out those activities, following the PDCA (Plan-Do-Check-Act) cycle.

a. **Policy implementation is our strength**

Senior management announces mid-range management plans and management policies to all divisions and Komatsu Group companies. Then, from middle management all the way down to individual worksites, we set ourselves high targets and develop annual business plans based on the management policy. To accomplish these goals, all employees must then carry out their respective activities according to their role and position in the organisation, and with a high priority. To ensure successful corporate management and Komatsu ways of manufacturing, this integrated capability we have developed is indispensable. It combines the respective advantages of top-down and bottom-up as well as “middle-up” and “middle-down” initiatives to link all levels of Komatsu Group.

In the 1960s, Komatsu introduced Total Quality Control (TQC) concepts and methods to improve the quality of products as part of the “Project A” program, as it faced the market entry of Caterpillar Inc. of the United States into Japan. Policy deployment was one of these methods, and it proved highly successful in allowing us to achieve our business plans. Ever since, whenever we have faced crises or had critical tasks to accomplish, senior management has developed policies, then carried out the action plans developed by middle management, who have the expertise. These policies and activities were communicated to all employees, and implemented organisationally. Middle management would propose activity plans to senior officers and senior management, then play a leadership role in carrying out activities with the full confidence and trust of their staff members. The speed and power of this policy deployment has been deeply imprinted in the Komatsu DNA.

As vital aspects of policy deployment, all employees must understand the TQC concepts and act accordingly. And all employees use turn the PDCA cycle to establish the process and structure.
b. Use in your own words
Once senior management policies are announced with clearly defined directions, all departments need to start moving to achieve group-wide goals. This is our traditional strength and we must uphold this tradition with the utmost care.

When managers and group leaders develop their policies and action plans, they don’t simply transfer upper-level policies, such as those of divisions and companies (in the case of Komatsu Group companies) to staff members. Instead, they must digest those policies, consider their responsibilities and roles and use their own, easily understood words to ensure all their staff members understand them thoroughly. Managers and group leaders in different strata should understand that they are constantly being tested in their communications skills by both their senior managers and their staff members in this process.

c. Never think the current condition is best
All employees are expected to continue their efforts to improve their work, because we still have plenty of room for improvement. If we stop moving forward and meeting the changes of the business environment flexibly, we will lose the “mega competition” – the one for long-term survival. To have an attitude of constantly taking on the challenge of new things is essential.

Our strengths lie in our workplace capability (employees’ capability to improve their work). It is important to clarify the current issues we are facing, and determine the cause of issues through our expertise. By implementing countermeasures and solutions to issues, we can keep improving our work. Through each step of this continuous improvement process, each and every one of us will accumulate knowledge and experience, and enhance our workplace capability.

d. Do not blame staff members for their mistakes
In the course of developing staff members and passing on technical skills to them, if as managers, supervisors and group leaders, you only blame staff for their mistakes, back them into a corner, and publicly humiliate them, you are a failure. It is more important to make them think about the background causes and reasons for their mistakes, understand them, and develop measures to prevent them from making the same mistakes again.

Managers and supervisors are expected to inspire staff members to work harder for their own self-improvement, learn more skills, and develop in their roles by using the opportunities arising from mistakes for their personal growth. It is equally important that managers and supervisors create a work environment where staff members will be prepared to take on challenges without worrying about mistakes. Likewise, you must lead staff members in such a way that they will observe how their supervisors work and proactively learn about the critical markers of work.

By valuing communication on a daily basis, managers and supervisors will establish a good relationship with their staff members so that they feel comfortable consulting with them and seeking advice and assistance. An “open door” policy on the part of managers and supervisors is important in fostering good relationships with your staff.
e. **Develop hypotheses, draw the scenarios and make predictions**
When engaging in new work where you have had no previous experience or if you are getting little results from continuous improvement efforts, move away from conventional approaches and look for new measures and ways of doing things. Specifically, we should plan to generate bigger and better results by creating new ways to achieve given tasks. After defining your approaches to given tasks, develop as many hypotheses as possible by fully utilizing professional expertise and proprietary technologies. After discussing individual scenarios, you can predict anticipated results. After evaluating the predicted results and the possibility of achieving them, take action.

f. **Collaboration with Business Partners**
All our divisions, as well as our business partners around the world, work jointly to solve mutual problems and improve operations, share knowledge and expertise, and conduct business with full awareness of corporate social responsibilities. As “All Komatsu”, we work to facilitate our business growth.

- **Win-Win relationship**
  It is important for us to establish a relationship of trust with all our business partners and maintain a stable relationship into the future. If one side only thinks about their own profits, or two sides conduct business only for short-term profits, the business partner relationship will not last. We need to engage in business transactions always in the spirit of fairness and must never favour partner over another. Our relationships with our business partners must be “Win-Win” in order for everyone involved to mutually generate profits and ensure on-going success.

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**Case study**

**JoiFUL (Joint Follow-Up Log) by the Product Support Division**
Our Product Support Division works to establish “Win-Win-Win” relationships, between Komatsu, our end customers and our distributors. We assist our end-customers to grow their business through using our equipment, and Komatsu and our distributors get compensated for our efforts. In this manner, we are working to build a sustainable Win-Win-Win relationship. Among all our activities designed to foster this relationship, the most representative one is the JoiFUL program with our mining and quarrying customers. Under this program, all three parties work together to maximise our end-customers’ productivity and machine utilisation rates and minimise their costs. To achieve these goals, the three share tasks and improve on them together. The tasks involve an extensive range of areas, including machine quality, fleet management, maintenance, preventive maintenance, overhauling, driving methods, driver training, mining methods, machine specifications, and support of parts and components. JoiFUL meetings are held every month at job-site level, every two to three months at managers’ level, and once a year at senior management level. In all these meetings, the progress of each group’s respective efforts is followed up to promote improvement activities jointly. Today, this program is being conducted with major end-customers around the world.
• Emphasis on collaboration (teamwork) with distributors and suppliers
To promote business growth according to management policy, we collaborate with our distributors who are directly engaging in business with customers, our suppliers who are taking part in the Komatsu ways of manufacturing, and members of the Komatsu Group by building on the relationship of trust and sharing information.

In the course of our history, we have been able to surmount a number of very difficult times, thanks to the efforts and support of our business partners. When we have faced challenging tasks, we have worked jointly with them for breakthrough ideas, teamed up with them for action, and in some cases, provided them with assistance and advice. We also support their human resource development in order for them to build up their corporate strength so they can meet changes in the business environment.

Case study
When we faced the Global Financial Crisis (GFC) of 2008, we checked on our supply chain conditions and helped those distributors with big inventories by temporarily repurchasing back from them the equipment they held in stock. Simultaneously, some plants discontinued production temporarily. Everyone involved collaborated and worked together to find solutions, and overcame this very challenging business environment.

• Dynamic action through cross-organisational functions
When we approach some problems, we use a matrix of vertical and horizontal organisational structures. By its nature, the horizontal organisational structure implies a “cross-functional” or “cross-organisational” structure. When engaging in project-based activities to solve problems, we have formed taskforces by having those groups, which have the same functions across different companies in the vertical organisational structure, tackle the same problem so that cross-organisational collaboration becomes easier. In this manner, we have worked to solve problems quickly. The vertical organisational structure implies existing organisations and products. As represented by the separation of different services, standard organisations are based on the vertical organisational structure. As a result of horizontally connecting the same functional groups of different vertical organisations within Komatsu Group, members of the taskforce can take actions dynamically in order to solve problems facing the company.

At Komatsu, middle management employees (managers of departments) frequently form taskforces on their own initiative and take a leadership role. This is our strength. We are constantly forming taskforces deal with problems develop solutions.

• Work together with other departments
Work should be performed through teamwork carried out by employees who are related to its process. We can achieve significant results only when all involved understand the group policy and work together for common goal. Therefore, when we have differences in our work policies
and goals, and are heading in different directions, we cannot lever our integrated capability. To demonstrate our integrated capability for total optimisation, all relevant departments should collaborate to mutually understand the goals and set our efforts in the same direction.

Although it is easy to talk about “directing efforts in the same direction” and “collaborating with others”, these cannot be done overnight; mutual trust is indispensable. To establish mutual trust, we need to create a corporate climate in which we can express our thoughts freely without worrying about offending others, and in which related departments get together with specialised knowledge and expertise, and proprietary technologies and engage in animated, stimulating discussions towards one shared goal. As a result, we will better share values and information and develop team spirit.

Today all members of the Komatsu Group around the world need to understand the policies and strategies.

- **Timely notification, report and consultation**
  Work should be performed by teams. To promote efficient and rapid work, it is important that all team members together have an accurate understanding of progress.

During the past few years, compliance has become very important. In this regard, we need to respond quickly to bad news, so we must ensure that the necessary information goes straight to the people who need to act on it.

As soon as we become aware of a problem, we must promptly notify the person in charge of the matter and implement necessary measures to minimise any damage. The required steps of notification, reporting and consultation must be made to your supervisors, those in charge of the relevant matters, and any other concerned persons. Such information is not limited to formal situations. To this end, it is important to promote good communication at workplaces on a daily basis so that all kinds of information will become open and be shared.

A corporate culture in which bad news reaches top management quickly and accurately will make the company stronger.

To sum up, notification, reporting and consultation, regardless of being internal or external, should be conducted in a timely manner, before information becomes out of date, or events overtake us.

g. **Development and vitality of Human Resources**
   At Komatsu Group, we consider our employees our most valuable asset, because it is they who support sustainable corporate growth. Through our global human resource development and education, we are working to enhance our workplace capabilities (Kaizen) and promote career development.
- **Human Resource Development as an important role of middle management**

Employees are valuable, indispensable assets of the Komatsu Group. As a manager, it is part of your role that you pay special attention to your staff members on a daily basis, to help them devote their efforts to achieving their objectives by balancing their desires for personal development with our organisational goals. Managers who neglect this effort are failures as managers.

Human Resources and education departments work to develop programs and infrastructure for employees’ career development and offer advice.

The quality of companies is determined by the quality of their employees. Under The KOMATSU Way, we believe that our employees’ vitality and workplace capabilities (for continuous improvement) are one of our core strengths. To help employees develop their own careers, we continuously hold internal/external seminars and training sessions. Komatsu Group will continue to provide its employees with training and educational opportunities on a global scale in order to enhance their capabilities.

- **Praise your staff’s achievements right away**

Praising and advising are necessary to develop the professional growth of staff members and motivate them at work. Praise your staff’s achievements right away. Never miss an opportunity for praise. As a result, your staff members will be more motivated, gain self-confidence and have more confidence in acting proactively. Remember, timing is important. If your praise comes late, the sense of their accomplishment may fade away and they won’t be so motivated.

When they make mistakes, never blame them but work with them to work out why they have made the mistakes. Instruct them to go over what they did wrong, and asking why it happened, so you can help them discover the true cause(s) of their mistakes. This should lead to their better understanding of the situation, and help them understand it is essential to avoid making the same mistakes. Praise the achievements of your staff members, while as their manager, taking ultimate responsibility for their mistake. They will better develop their values and grow in the company by watching your behaviour.

- **“Think positively about ways to make it possible rather than reasons why it is impossible”**

This saying concisely expresses the spirit of challenge in Komatsu’s DNA. To accomplish a given task, if we first talk about the reasons why we cannot do it, we tend to lose motivation and immediately get far behind in accomplishing it. Instead, by taking a positive attitude to task – no matter how challenging – will always help us move forward, and enjoy a rewarding sense of accomplishment when we achieve it. In our history, our predecessors worked so hard to improve the quality and reliability of Komatsu products through Projects “A” and “B.” By continuing technological innovation, we continue to meet customers’ expectations. Our predecessors’ determination and commitment have been passed on to us in the form of Komatsu’s DNA.
Increase your job satisfaction: Learn about The KOMATSU Way of monozukuri
Learn more about The KOMATSU Way of monozukuri. Think about your personal interests and hobbies: If you are curious about something and enjoy what you are doing, then you can get really involved. Once it becomes interesting, you find you will focus on it and even forget the passage of time. Then, you want to learn more about it and become able to understand more difficult, advanced concepts. This applies to your work as well. When we become interested in our work and learn more about technologies and know-how, we can better understand what we are doing and collectively working towards, and become capable of taking on the challenge of more advanced work. Then, we truly enjoy our work, build up our self confidence, have a sense of pride in our achievements and raise our motivation, generating a positive growth circle.

Become interested in The KOMATSU Way of monozukuri: make opportunities to visit plants and customers’ jobsites, discover the relationships between Genba and your own work, then apply what you learn about Genba to your own work.

Give it a try! Nothing can be achieved without trying
With respect to your own work, when you think first that you cannot do it before even trying, you will never make any progress. Even if it looks impossible, it is important that you try it anyway, take action and try your hand. There are many instances in which you cannot solve problems by yourself, but solutions emerge when you work on them by getting people around you involved. At the same time, when people see you trying so hard, it is easier to get their assistance.

It is important for leaders to have a stronger belief than anybody else that you can do it, pass that commitment to team members and share it with them. When you demonstrate working persistently towards a challenging target with a belief that “everything is possible”, each and every team member becomes motivated and well focused, creating an air of action with determination. Such an experience is the best opportunity for everyone involved to improve their individual capabilities. Always work with this positive attitude.

Put forward whatever ideas you come up with
Komtasu has built a corporate culture that encourages employees to put forward proposals and to try them out. For many of us, this is one of the great things about Komatsu. Over the years at Komatsu, a rough rule of thumb has been if you have 60% or higher confidence in a course of action, just do it. Learn from your mistakes after trying it, then correct them as soon as possible. Are you hesitating to put forward ideas and work on them because you are concerned about 100% perfection? Instead, don’t hesitate; propose your ideas and try them out. You will find new pathways opening in front of you.

A small amount of effort adds up to a big difference later
A small amount of effort brings about small results. But by keep working persistently, small amounts of effort will eventually add up to big results. It is important not to give up but persevere and build on results, step by step.
When you look at a great inventor, you will find that not all of their ideas were great. By continuing their challenge with diligent efforts and without giving up many possibilities, people constantly come up with new ideas and perspectives which result in great results. When each and every employee continues to make small improvements, they will accumulate to give us big results. As we grow professionally, we can make contributions to corporate growth.

Case study

Order-based sales activities
If you visit a customer out of the blue in an effort to receive an order for a machine repair job, you probably won’t get the order. It is important that every service technician makes as many opportunities as possible to visit customers, check on their machines, learn directly about their conditions, explain and recommend needed periodic maintenance, cleaning, repair, wear parts replacement and other services. We will receive service orders only after the customer fully understands the value of what we can offer. Although such an effort looks small per se, it builds up to become a stable and solid business foundation for our distributors. While demand for new equipment and sales are closely affected by the economic conditions of each year, revenues from parts and service are derived from the total number of machines delivered to customers over a period of 10 to 20 years. Therefore, the degree of fluctuation in demand is much smaller and far less affected by economic conditions. Capturing these revenues to the highest extent possible will make important contributions to increasing distributors’ sales and long-term business success. Service and support revenues are an important profit centre of distributors’ business.

Learn through hard work and experience
An old Japanese saying is: “Techniques are something that you must steal from the master.” A familiar proverb is: “You can lead a horse to water, but you can’t make it drink”. In other words, unless someone cares about a given thing, you cannot force them to do it. For someone to undertake further education or training, we need to make them acutely aware of the need for it. When young employees become motivated towards their professional growth, they start to imagine what they would like to be in the future or have a dream of what they can achieve. Then they will start to make continuous efforts toward their goals, learn specialised knowledge and expertise, find out about new technologies, gain technical skills and build on their experiences.

Managers and supervisors need to motivate and encourage younger staff members in their professional growth by teaching them that the world is a lot bigger than perhaps they think. This is an essential part of fostering their growth or passing on technical skills to them.

Young staff members need to have awareness of surrounding issues and an aptitude for learning on their own initiative. While you are young, take on challenges without worrying about making mistakes and devote yourselves in learning specialised knowledge and expertise, technologies and technical skills. If you do so, you will accumulate successes and failures alike as your experience, which will become valuable assets. They will become very useful to you in the future when you are assigned to more important work.

Take on the challenges to make your dreams come true.
Demonstrate first, and then have them do it

One of the best Human Resource Development methods is OJT (On the Job Training). The most important point in OJT is that supervisors, rather than explaining about work, first actually demonstrate the concerned skills and then have the trainees perform them. Giving a verbal presentation and providing instruction materials, is not sufficient to tell for sure that trainees have truly understood the instructions and that they can actually do it the work until supervisors observe and check them.

When a trainee’s skills are not at the required level, it is important for supervisors to first demonstrate the work required at Genba (workplaces) by carrying out the actual work, and then to coach the trainees through OJT.

It is indispensable for Komatsu people to pass on professional skills to younger employees without fail. Through OJT, we can identify which areas trainees are good at, and not good at, then foster the growth of their good points. As a result, we will achieve the “right-person-for-the-right-job” allocation of employees.
CHAPTER 4
Brand Management
VI. THE KOMATSU WAY: BRAND MANAGEMENT

1) Customers’ perspective
2) Understanding our customers
3) Supporting our customers with our integrated capabilities

1) Customers’ perspective
When you are told that activities from the perspective of customers are important, you might think everybody knows that. So let’s think how much our routine activities are being conducted in this perspective. The customers’ perspective in our brand management calls for activities designed to help our customers achieve their goals, not help us achieve our goals. Furthermore, they are not designed to win over our competitors, but to win our customers’ trust. We are working to reform our mindset to a true customers’ perspective.

a. Differentiation from competitors is not our final objective.
A very common strategy when marketing and promoting products is to attempt to gain an advantageous position by analysing competitors’ machine features and benefits and highlighting differences designed to demonstrate your strengths. While this approach looks valid at first glance, when you place too much importance on it, it is possible to end up in a situation where you focus all your attention on your competitors, rather than your customers – who are far more important than your competitors.

In contrast, under The KOMATSU Way Brand Management approach, we always start thinking first about customers. In order to realise our customers’ goals, we think what we, as the Komatsu Group, can do or what we are lacking. We take action to ensure we accomplish our customers’ goals. Of course, it is important for us to analyse our competitors, but it is not our goal to win over competitors. Rather, it is more important for us to win our customers’ trust and ensure their satisfaction.

b. Think always about the value of your activities for customers.
It is not always necessarily true that activities which you are sure are benefiting customers are in fact valuable to them. We all work according to Komatsu Group’s policies and plans. However, when we expend too effort accomplishing short-term figures and results, we are more likely to achieve our own goals rather than our customers’. Our brand management spirit advocates that we can achieve our goals only when customers achieve their goals together with us.
Case study

Take a case where a sales representative is working very hard to sell a machine, which may not actually be needed by the customer, but the rep wants to make the sale in order to achieve a monthly sales plan or increase the company’s market share. Of course, it is important for the rep to achieve their target figure, but is their effort valuable for the customer? The customer may be impressed by their hard work and determination and say “if the price is a lot cheaper, we will buy it.” However, if the customer may benefit more from renting a machine or getting their machine repaired, the sales rep should recommend that. Rather than thinking only about achieving your own target in the short-range perspective, it is more important to always think what you can work with your customer for their best interest, because that will build a long-range relationship with the customer, resulting in an increase in our sales, profits and market share.

c. **We work to become an indispensable partner of customers**

Simply put, our brand management activities are defined as: “Those activities through which we increase the degree of customers’ dependence on what only we can offer and through which we become their partner of continuing choice”. If we provide only equipment to customers, we will likely to become trapped in a cycle of severe pricing competition. Therefore, it is important for us to continue offering a combination hardware, services and systems, which are truly valuable for customers. To this end, it is important for us to understand customers’ problems and offer our solutions for them. But it is more important to take an approach where we are helping them move towards the ideal conditions (dreams or goals) that they are working for, share these with them and achieve them together. By building on these efforts, we will be able to become an indispensable and true partner for our customers.

2. **Understanding our customers**

In our brand management we categorise customers’ ideal conditions into the three strata of:

i. **Vision**

ii. **Mission and goals**

iii. **Work to understand customers’ real goals**

Then, in order to help customers to achieve their real goals, we deploy and deliver our group-wide resources and capabilities. The most important element of these processes is to understand exactly what our customers are looking for, and this is where our distributors can play a major role because they have face-to-face contact with customers on a daily basis. For us to build up a good relationship with customers in the long term, we need not only to better understand their businesses and market conditions, but also work to find what they wish to achieve in the future as well as their current goals.
Komatsu Group’s assets (strengths): technologies, development, knowledge and expertise, systems and organisations standing of what customers’ really want? Generally speaking, it is rare that customers have a clear picture of what they really want in a machine or service. When you ask them, “what would you really like to see from Komatsu?”, you are more likely to receive complaints about mechanical problems of machines and be asked for solutions. While it is important to solve these immediate problems they are facing, of course, they are only expressing current issues and not their real goals.

To understand customers’ real goals, we need to read between the lines of their words. We need to understand their businesses, future dreams, business environment and the challenges that they have to fulfil. In many cases, it is a matter of having the right attitude in order to create ideal conditions together with customers and initiate proactive dialogues with them.
Case study

This is an actual case in which we have come to a full understanding of a customer’s real goals. A major Japanese civil engineering contractor was telling us that the quality of our machines is really good, but our prices were too high. After listening to their comments carefully, we learned that they needed to reduce the entire costs of a given project, since they constantly faced demands to reduce their costs from their head contractor. They also thought that we would not be able to assist with lowering their entire costs structure, so they decided the best approach was to tell us to lower the prices of our machines. As a result of this, our distributor began taking to help reduce the entire costs of the project. In addition to the purchasing cost of our machines, other costs included machine-related expenses, such as maintenance, fuel, used equipment, insurance, wages, transportation, safety and environmental requirements, facilities, communications, electricity, materials and design development. Our distributor first looked into machine-related costs, and made a proposal designed to reduce the total lifecycle costs of machines. To this end, they brought in a KOMTRAX-equipped machine, analysed how the machine was used and the amount of fuel it consumed, and suggested our energy-saving machine operation guidelines. They also demonstrated a PC200-8 Hybrid. Furthermore, they made a presentation of ICT (Information And Communication Technologies) intensive construction, because the customer would be able to reduce their entire jobsite costs in terms of wages and facilities expenses by shortening the construction period. The customer was highly impressed with the presentation and asked to visit an actual ICT-intensive construction jobsite. The customer appreciated our efforts and approach, despite the fact that we did not agree to their initial request to sell them our machines at a lower price, because these efforts were truly valuable for the customer.

Understanding customer’s true goals through proactive dialogues with them

We want lower prices for your equipment

When we simply listen to customer’s voice

Make a special discount deal

Why

Contractor’s demands for lower costs

Reduce overall costs of their work

Reduce life-cycle costs of machines

Guidance for energy-saving machine operation

Reduce fuel costs by using hybrid models

Derive customer’s true goals from their words through proactive dialogue
b. **Answers can be found in customers’ worksites**

Common stated goals of customers include “to improve productivity at worksites,” “to cut down costs of worksites,” “to ensure safe operations,” and “to consider the natural environment.” If they are working to reduce their productivity, we won’t be able to set specific targets of our activities until we understand their construction and production processes. If they are concerned about costs, we need to understand the cost structure of their jobsites. As ideas to achieve all these goals can found at their jobsites, it is not an easy job to understand them. However, if we neglect this process, our efforts will not result in assisting customers toward the realisation of their goals. We can “visualise” their goals only by many repeat visits to their jobsites.

c. **Talking about future dreams with customers**

Do you take opportunities to talk about the future dreams and visions of your customers? Perhaps you think that such a talk is unrelated to work and therefore has no value for our business, or you are afraid to do so because they might demand something we cannot provide right now. But, in order to build up a long-term, close relationship with customers, you should work always to find out what they wish to have in the future. Of course, some customers may simply tell you, “We cannot afford to think about the future now”. You might reply to them, “Let’s talk about your vision of the future together”. It’s more than likely that such dreams won’t be able to be achieved immediately. Although we all tend to think within the scope of what we can do now, we should talk with customers about what they cannot do today but may wish to do in the future – and keep having these sorts of discussions. As a result, our relationship with them will have the opportunity to dynamically improve, enabling us to continue to create products and services that are truly valuable to them.

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**Case study**

This case demonstrates how the “customer relationship correlation chart” was used to understand a customer’s real goals and enhance our relationship with them. The customer is a leading mining company which produces the world’s largest class volume of copper. It was our first attempt to learn about this customer’s real goals rather than doing regular business. We told them about our intention before our visit. To our great surprise, the president of this company attended the meeting, and we met him for the first time. Looking at the chart, he shared his visions with us. By looking ahead 20 or 30 years, as an industrial leader, he wants to achieve perfection in production, occupational safety and health. To this end, he asked us, as a supplier of machines, to offer full support to their human resource development and technology innovation program. At the end of our discussions, in front of other executive officers, he mentioned that it is very important for a supplier to discuss future strategies with its customers so that a supplier would be prepared to provide full co-operation in achieving a customers’ visions.
3) Supporting our customers through our integrated capabilities

To help customers achieve their real goals, which are derived mainly through our distributors, we need to converge our group-wide integrated capabilities. To this end, it is important for senior management to demonstrate their leadership for the promotion of cross-organisational activities. Senior management of our distributors are expected to always take a proactive attitude dealing directly with customers, while our marketing departments play the role of co-ordinating the entire project by using the full range of resources, market intelligence, industry knowledge and expertise available to them.

a. Marketing departments play the role of co-ordinators.

To achieve our brand management goals, Komatsu Group marketing departments need to carry out the following three roles as the co-ordinator of the entire project:

- Gain an understanding of the overall management resources owned by the entire Komatsu Group
- Provide optimal management resources and capabilities to distributors around the world
- Feed back to Komatsu Ltd all relevant information related to the development and management resources and capabilities required by the Komatsu Group, and make suggestions as to how our brand management goals can be achieved.

To successfully carry out these roles, we need to ensure our marketing departments have:

- A full knowledge and understanding of our products
- A full knowledge and understanding of the construction, mining, extraction and production
Methods used in the industries we serve:
- The ability to define the quality required by our customers
- The ability to suggest the development of new products and services
- Extensive knowledge concerning Komatsu’s management and operations, in addition to marketing activities
- Knowledge and understanding of TQM and related philosophies

g. In-depth knowledge of Komatsu Group’s management resources (see diagram)

1. Comprehensive understanding of Komatsu Group’s overall management resources & Capabilities
2. Optimal integration of the management resources and capabilities of overseas subsidiaries & distributors
3. Feedback & proposals to Komatsu Ltd concerning management resources & capabilities that the Komatsu Group should develop or build in the future
Case study

Komatsu Group’s Autonomous Haulage System (AHS) can be considered an ultimate example of our brand management. We embarked on developing our AHS initially to make the dreams of a major mining company come true. To excavate limited resources sustainably and effectively, mining companies need to mine deeper at locations far from cities and towns, which often require miners to work in very tough and remote locations. This customer’s dream as an industrial leader was to achieve remote-controlled mining operations of all their mines by fully utilising leading-edge technologies. Mines are typically operated around the clock; in addition, much of the work is so routine that workers can become fatigued, which results in accidents. In addition, wages and other expenses, such as housing and necessary infrastructure, continue to rise. By sharing this customer’s dream, we as the Komatsu Group developed our AHS by matching mining processes with our autonomous truck technology expertise accumulated over many years. Now, having introduced the AHS, we are making continuous improvements to the system as a result of what we are learning through actual use at customer’s mines.

1) Co-creation: Creating, sharing and achieving dreams together with customers
   The ultimate goal of our brand management can be summed up in the following statement: The Komatsu Group creates, shares and achieves dreams together with customers.

   It might take time to achieve dreams or the ultimate goal and will require us to overcome many difficult problems. In the process of moving forward to dreams step by step, however, we should be able to build up stronger relationships with customers, strengthen our group-wide capabilities, and achieve technological breakthroughs. By looking into our customers’ dreams, we can continue to provide them with products and services that are truly valuable for them, and ensure that our competitive Monozukuri technologies, our DNA, will remain valuable for our customers.

2) Understanding Komatsu Group’s management resources
   To achieve customers’ real goals, we need to deploy Komatsu Group’s management resources to the fullest extent. In this light, it is important to always think and talk about the following questions:

   • To achieve our customers’ real goals, what kind of management resources do we have and where are they?
   • How can we package these resources, convert them into higher functional performance and deliver them?

   In some cases, Komatsu Group’s management resources may not be sufficient enough to enable us to ensure our customers achieve their real goals. However, achieving a high level understanding of our customers’ real goals will lead to the development of next-generation products. This means it is important to make high demands on our development and production operations.
Komatsu Group’s management resources

- Corporate governance
- Global management
- Knowledge & expertise
- Accounting system
- Komatsu retail finance
- Information media, for example DAICHI

- JoiFUL
- CSR
- Global sales network
- Parts supply network
- Used equipment sales network
- Komatsu Rental
- Others

- Compliance
- Global production
- Production control system
- Komatsu Midori-Kai
- Sales & production planning knowledge & expertise

- DANTOTSU products
- AHS
- KOMTRAX
- KOMTRAX Plus
- Hybrid
- Components made in-house
- CSS-Net

- Product development capability
- ICT-(Intensive Construction technology)
- Technology for environment conservation
- Manufacturing engineering
- Quality control technology

- KOPEN
- EOP Care
- KOMATECH
- PM Clinic
- SNAP
- OFR
- KIRD

- The KOMATSU Way
- Education & training programs
- Construction methods Education
- Kaizen activities
- TQMledge & expertise

- Monozukuri competitiveness
- Training centre
- Techno centres
- Service support centres
- SE & FE with a vast range of experience
- Other

Management

Technology

People
Chapter 1: The Komatsu Way

- Compliance
- Global production
- Production control system
- Komatsu Midori-Kai
- Sales & production planning knowledge & expertise

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