

Introduction

- Topic under review: 'Monozukuri' that centers on manufacturing industries
- Objectives: To propose that corporate managers must take a stance to involve themselves directly in enhancing the base for 'monozukuri'

**Factors for the strengths of Japanese 'monozukuri'**

- Organizational culture of making ourselves match the other
- Management with long-term vision
- World number one in frontline and teamwork
- Cooperation between companies and existence of strong small-mid sized firms
- Highly intensive technology development capacity
- World number one in quality
- The most competitive market in the world (Japan)
- Abundance of 'monozukuri' human resources
- In-company human resources nurturing systems

**Recognizing the trend of a new era**

- (A) Technological innovation
  - Importance of intellectual assets as key business resources
  - Changes in competitiveness caused by new technology (nano- and bio-technology)
  - Deepening IT / network revolution
- (B) Diversification of customer needs
- (C) Increased globalization
  - Japanese corporations advancing overseas
  - The remarkable rise of developing countries (BRICS, etc.)
- (D) Rising concern for the environment and public safety and security
- (E) Concern for decreasing 'monozukuri' human resources

**Issues for a new age**

- (A) Technological Innovation
  - Intellectual assets are not being used effectively
  - Enhancement of fusions of technology incorporating advanced technologies
- (B) Diverse customer needs
  - From product value per se to diverse product value
  - Insufficient collaboration with diverse suppliers and other industries
- (C) Increased globalization
  - Nurturing different types of human resources and creating teamwork
  - Forming a global division of labor and cooperation systems
- (D) Rising concern for the environment and public safety and security
  - Secure and improve quality, innovation in business systems
- (E) Concern for decreasing 'monozukuri' human resources
  - Utilize diverse 'monozukuri' human resources

Lastly

Corporate managers themselves must use the examples of the six courses of action, arranging them to the situation of each corporation, creating strategies and taking action to enhance the competitive edge of 'monozukuri' industries and user confidence worldwide.

**The Foundations of Enhancing the Competitive Edge of Japanese 'Monozukuri' Industries and User Confidence Worldwide: Three Recommendations and Six courses of Action**

**The basis of 'monozukuri' industries with user confidence worldwide**

- (1) The ongoing supply of outstanding quality, cost performance, safe and environmentally friendly products
- (2) Promote collaboration with different fields and industries and within one's own industry, and pursue global collaboration as part of the process of (1)
- (3) Continue to nurture 'monozukuri' human resources to ensure the success of (1) and (2) above.

**Recommendation 1) Achieve Open Collaboration**

Achieve outward-looking open collaboration with different industries and organizations in addition to improving existing well-formed teamwork. Open collaboration is to be maintained in every stage, from R&D to manufacturing, sales, and after-sales services.

**Types of Open Collaboration**

**Open collaboration with different fields and industries**

E.g.) Bringing leading business areas to establish new businesses, joint industrial-academic research and fusion of advanced technologies

**Open collaboration within the industry**

E.g.) Standardization of intellectual property rights, joint research themes, collaboration with diverse suppliers

**Global open collaboration**

E.g.) Collaboration with non-Japanese human resources, world-wide cooperation and division of labor

**Courses of Action for Open Collaboration**

**1. Active mobilization and use of intellectual assets**

Mobilize intellectual assets to create new businesses among different industries and make active use of these assets to encourage standardization within different fields and industries.

**2. Promotion of industry-government-academia joint research in the 'research community'**

Develop open industry-government-academia research schemes at the research and development stage.

**3. Expansion of Supply Chain and Value Chain based on 'Products'**

Expand systems and services business operations based upon experimentation with new forms of collaboration in supply chains and in supplying new value-added products or reducing trading costs

**4. Formation of Systems for Establishing Japanese-style 'Monozukuri' Overseas (from a hub and spoke centered around 'monozukuri' in Japan to multilateral hub and spoke bases centered around Japanese-style 'monozukuri' worldwide)**

Act on human resources development bases to expand Japan-style manufacturing internationally, and work to develop innovations in production systems through international exchange and division of labor.

**Recommendation 2) Secure outstanding Quality and Strive for further Innovation (Enhancing the value of the 'Japan Brand')**

Exercise the top management level for quality management. From focusing on usability of functionality and performance to focusing on human values such as society and sensibilities towards the global environment and so on. Develop outstanding quality and functionality and performance

**5. Work to secure outstanding quality and strive for further innovation**

Promote inter-industry collaboration and industry-academia collaboration with different fields and industries in order to develop products with new levels of quality (products with outstanding quality / products focused on social and human values)

**Recommendation 3) Secure, Nurture, and Utilize Diverse 'Monozukuri' Human Resources**

Nurture and utilize diverse human resources regardless of gender, age or race. Nurture overseas human resources being able to cope with Japanese-style 'monozukuri' and encourage cultural interchange. Spread information through promoting collaboration between people from different cultures by sending Japanese human resources overseas

**6. Work to Secure, Nurture, and Utilize Diverse 'Monozukuri' Human Resources**

- Corporate human resources development systems suited to each individual
- Active industrial support for science-based education
- Provide appropriate incentives to the employees of 'monozukuri' industries