Ensuring Business Continuity for SMEs in JAPANESE ICT Industry

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Japanese Definition of SME (Number of Employees)

A. Manufacturing
- Small: 1 – 20
- Medium: 21 – 300
- Large: 300 over

B. Wholesale and Services
- Small: 1 - 5 employees
- Medium: 6 - 100 employees
- Large: 100 over

C. Retailing
- Small: 1 - 5 employees
- Medium: 6 - 50 employees
- Large: 50 over
Number of **business place** by industry and scale in Japan

published on 2012.06.04 by The Small and Medium Enterprise Agency in Japan

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Large</th>
<th>Medium</th>
<th>Small</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total (Non Primary Industries)</strong></td>
<td>5,853,886</td>
<td>58,725</td>
<td>1,465,001</td>
<td>4,330,160</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>1.0%</td>
<td>25.0%</td>
<td>74.0%</td>
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<tr>
<td><strong>Manufacturing industry (including ICT Manufacturer)</strong></td>
<td>536,658</td>
<td>3,560</td>
<td>80,142</td>
<td>452,956</td>
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<tr>
<td></td>
<td>100.0%</td>
<td>0.7%</td>
<td>14.9%</td>
<td>84.4%</td>
</tr>
<tr>
<td><strong>Information and Telecommunications business</strong></td>
<td>77,900</td>
<td>2,596</td>
<td>26,985</td>
<td>48,319</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>3.3%</td>
<td>34.6%</td>
<td>62.0%</td>
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</table>
A start in Japanese ICT industry of BCP

“The SEMI Business Continuity Guideline for the semiconductor Industry and its Supply Chain”

- by the SEMI Business Continuity Council
- Published on March, 2003
- Focusing on Resilience of Supply Chains
- Japanese Translation was published on June, 2004

SEMI: Semiconductor Equipment and Materials International
Worldwide members: 3,000 companies over in 2004.
Japanese members: 600 companies over in 2004.
Contents of the Guideline: Part 1

Business Continuity

1. Management succession and the identification of key staff
2. Emergency funding and purchasing
3. Off-site storage of vital records
4. Strategy for replacing specialized equipment
5. Strategy for assuring the availability of key staff
6. Logistics for notifying key staff and transporting to an alternate work site
7. Personnel policy – human resource management
Contents of the Guideline: Part 2

Business Recovery

1. Restoration of minimum acceptable services
2. Recovery of critical business functions and ongoing operations
3. Primary site salvage, repair and reconstruction
4. Management of finances and insurance claims
5. Communications with key stakeholders (employees, media, shareholders, regulators, and other interested constituencies)
Contents of the Guideline: Part 3

Supply Chain

1. Planning for an uninterrupted supply chain
2. Evaluation of the organization’s bill of materials to identify risks of supply disruption
3. Identification of qualified alternative suppliers that are not dependent on the same source of supply chain materials
4. Single source materials and/or suppliers
5. Consideration of continuity of materials as part of new product development plans
Users have requested Suppliers to set BCP

- In 2004, Intel and Motorola have requested Japanese suppliers to follow the guideline.
- In 2005, Japanese IC makers have requested Japanese suppliers to follow it.

Through

<table>
<thead>
<tr>
<th>At first, a simple questionnaire</th>
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<tbody>
<tr>
<td>Then, more complicate questionnaire</td>
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<tr>
<td>Staff meeting</td>
</tr>
<tr>
<td>Executive meeting</td>
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</tbody>
</table>

But it was limited for major suppliers.

- Annual transaction value; 5 billion Jyen (= 50 million US$) over
- Approx. 100 Japanese companies among 600 SEMI Japanese members
Japanese Government’s BCP Guidelines

In 2006, Japanese government provided two BCP guidelines.

- A guidelines focused on resilience of ICT systems by Ministry of Economy, Trade and Industry
- The other guideline focused on resilience of lives (saving lives) against natural disasters by the cabinet office

So, Japanese ICT industries have focused to improve the following targets since 2006.

- Resilience of supply chains
- Resilience of ICT systems
- Resilience of lives against natural disasters
Which is the most important for Japanese SMEs’ president?

- Supply chains
- ICT systems
- Lives against natural disasters
Before/After the Great East Japan Earthquake & Tsunami on March 11, 2011

<table>
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<tr>
<th>Before</th>
<th>After</th>
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<tbody>
<tr>
<td>1 ICT systems</td>
<td>1 Lives against natural Disasters</td>
</tr>
<tr>
<td>2 Supply chains</td>
<td>2 Lives against natural Disasters</td>
</tr>
<tr>
<td>3 Lives against natural Disasters</td>
<td>3 ICT systems</td>
</tr>
<tr>
<td></td>
<td>4 Supply chains</td>
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</table>
Japanese SMEs’ presidents are too busy.

MY OBSERVATION after 3.11 disaster;

- Presidents of Japanese Small enterprises are too busy with introducing BCM, so they buy some insurances for fire and some natural disasters.

- Presidents of Japanese Medium enterprises understand the importance of introducing BCM for:
  - Almost all of them (more than 90%) saving lives against disasters
  - Some of them (approx. 30% ?) Resilience of ICT systems A balance of expenditures and merits is key.
  - A few of them (approx. 10% ?) Resilience of Supply chains JIT is still very important.
Influence of Fukushima Daiichi

Less than 50 km from Fukushima Nuclear Plant
- Almost all of SEMs have stopped their operations.
- Because they worry their employees’ health damage

More than 50 km from the plant
- Majority of SEMs have operated.

We learned that we need alternative suppliers.

Arena Co., Ltd
- 50 km from the plant
- 180 employees
- They have operated since the two months after the accident.
Reference Paper: Resilience is measurable!?

Why presidents of Japanese SMEs don’t consider these three targets?

- One of the reasons is “They are too busy.”
- Secondly, we/you are not provide any rational reason for introducing BCM to them.

If they can evaluate these targets, they may easily understand for necessity of BCM.

- Resilience of lives against natural disasters (ISO22301)
- Resilience of ICT systems (ISO/IEC27031)
- Resilience of supply chains (ISO22301)

The following paper proposes one of methods for evaluating these resilience;

“Form Development for Self-Rating an Organization’s Vulnerability and Resilience to Disruption”

By Y. Kohno, Y. Masuda, H. Nagahashi, K. Tanaka, and K. Tashiro

Journal of Disaster Research, Vol.7 No.4, 2012
Structure of Self-Rating Form

1. Evaluation of the area where the facility concerned is located
2. Evaluation of infrastructures on which the facility concerned depends
3. Evaluation of the supply chains with which the facility concerned is connected
4. Evaluation of the facility concerned itself
Self-Rating Form on Supply Chain

1. Evaluation on enterprise as customer and supplier
2. Measures on supply chain to be taken by the facility concerned
Evaluation on supplier

1. The items for evaluating site and building are included in the list of management resources.
2. The items for evaluating intellectual property, knowhow, brand image, and eagerness for management and work are included in the list of management resources.
3. The items for evaluating human resources such as knowledge, experience and qualification are included in the list of management resources.
4. The inventory of tangible property such as equipment, material, parts and goods in progress is included in the list of management resources.
5. Criteria for approval of all the tangible properties are specified in the list of management resources.
6. Lead time of all the tangible properties is written clearly in the list of management resources.

And more
Evaluation on supply chain by the facility concerned

1. Requirements, specifications and procedures for approval are specified on all the management resources procured from outside, and they are renewed regularly.
2. The substitutes are specified for all the management resources procured from outside.
3. All the Bills of Materials, BOMs, are prepared for each supplier.
4. The components from the single source are clearly written.
5. The components of which lead time until delivery is long are clearly written down.
6. The procedures for approval of necessity to be procured from the single source are established and reviewed.
7. List of the components from the single source and their suppliers is prepared and reviewed.
8. History of supply and estimation of demand of the components from the single source are available.

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