Target costing as a strategic tool to commercialize the product and service innovation

Liping Jiang
Copenhagen Business School
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Open Seminar of the Blue INNOship Project no. 15
Servitization: creating the market by understanding price, cost, contracts and financing
What is the issue?

Why is it important?

What can be done?

Next step
What is the issue?

Why is it important?

What can be done?

Next step
72% of INNOVATIONS FAIL to meet their financial targets or fail entirely!

Source: Ramanujam M. and Tacke G. (2016) Monetizing Innovation: How smart companies design the product around the price
Why don't all innovations become successful products/services?  
Why do so many fail?
Rethink the practice

Manufacturers/Service providers
- Price
- Profit
- Cost
  - How much will it cost to manufacturer/service provider?

Hope ➔ Certainty
- Product/Service design (Functionality, Quality, Process)

How companies design the product/service around the price and cost?
- Guesswork of pricing
- Less market consideration
- No connection from Price to Design

Bridge the design with market
- Look before you leap
- Go from hope to certainty
What is the issue?

Why is it important?

What can be done?

Next step
Commercial success of innovation

**<Bottom up>**

- Price
- Profit
- Cost

How much will it cost to manufacturer/service provider?

**<Top down>**

- How much will it cost to customer?
- Price
- Profit
- Cost

Desirable
Affordable
Profitable
Target costing

It is a system of profit planning and cost management that is price led, customer focused, design centered and cross functional.

Source: Ansari et al. (1997) Target costing: The next frontier in strategic cost management
Target costing principles

- Price led cost
- Focus on customer
- Focus on design

How companies design the product/service around price and cost?

- Life cycle thinking
- Cross-functional involvement
- Value chain involvement

Target costing

Generate profit

Plan and manage costs

Capture market share

Satisfy customers

Commercial success of product/service innovation

After sale

Research & Design  Production  Marketing  Distribution  Acquisition  Operation  Maintenance  Disposal
What is the issue?

Why is it important?

What can be done?

Next step
What we knew

Emerged from Japanese automobile industry in 1960s, eg. Toyota and Nissan

Received global attention from late 1980s

The basic idea is fairly simple and straightforward

Process is complex and challenging

Source: https://en.wikipedia.org/wiki/Target_costing#/media/File:Target_costing_process_redraw.png
What we wondered

How might we build on this foundation and transit to a target costing model for marine equipment manufacturers and service providers?

How to accelerate the transition and unfold its full potential?
<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Key Activities</th>
<th>Value Propositions</th>
<th>Customer Relationships</th>
<th>Customer Segments</th>
</tr>
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<tbody>
<tr>
<td>Suppliers</td>
<td>Production</td>
<td>Asset sales</td>
<td>Self-service</td>
<td>Shipyards</td>
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<td>Technology development</td>
<td>Asset recovery</td>
<td>Personal assistance</td>
<td>Ship owners</td>
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| Channels            |                      |                   |
| Raising awareness   |                       |                   |
| Delivering a value proposition | Providing customer support |                   |

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<th>Cost Structure</th>
<th>Revenue Streams</th>
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<td>Fixed and variable costs</td>
<td>Transaction revenues: one-off payment for asset sale</td>
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<tr>
<td>Life cycle costs</td>
<td>Recurring revenues: usage fee, subscription fee, leasing etc</td>
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Source: strategyzer.com
Cost-plus approach

Value Creation → Value Proposition → Value Delivery

End of product/service innovation process

Value capture

Cost → Price/Revenue

Profit

Product focus

Costs determine price

Limited interacts within organization and with external environment

Cost reduction focuses on waste and inefficiency

Less market consideration
Target costing approach

**Beginning** of product/service innovation process

1. **Value Creation**
2. **Value Proposition**
3. **Value Delivery**

- **Value capture**
  - Cost
  - Price/Revenue
  - Profit

**Step 1. Establishing target costs**

**Step 2. Attaining target costs**
Step 1. Establishing target costs
Establishing target cost

Manufacturers/Service providers

Target Cost → Price/Revenue

Define product/service features

Customers
- Customer needs
- Willingness to pay

Competitors
- Competitive analysis

Market landscape

Suppliers
Manufacturers/Service providers

Price/Revenue
Profit

Define product/service features
Establishing target cost

- Manufacturers/Service providers
  - Target Cost
  - Price/Revenue

- Define product/service features

- Customers
  - Customer needs
  - Willingness to pay

- Competitors
  - Competitive analysis

- Market landscape

- Price ceiling
- Range of prices
  - Competitor A’s price
  - Competitor B’s price
  - YOUR PRICE

- Profit

- Profit

- Market share goal
Step 2. Attaining target costs
**Attaining target costs**

**Value Chain**
- Collaborative relationship with suppliers, dealers, distributors, etc

**Recursive problem solving**
- Generate cost effective design
- Continuous improvement beyond the design

**Value Engineering**
- Cost analysis
- Estimate achievable cost
- Release design to production
- Undertake continuous improvement
- Actual cost

**Cost Out**
- Design costs out

**Cost Gap**
- Compute cost gap

**Manufacturers/Service Providers**
- Initial Cost
- Target Cost
- Cost Gap
- Design product/service
Exhaust gas scrubber case for step 1

Updates on regulation
Scrubber technology
Level of acceptance
Scrubber uptake by ship type
Orders and installations
Scrubber – Customers and competitors

Needs:
Meet the reduction target without spending a fortune

WTP:
Total cost of ownership (TCO) < Savings

Fuel price spread:
LSF-HFO or LNG-HFO

Competitors

Competitive analysis

Customers

Customer needs Willingness to pay
What is the issue?

Why is it important?

What can be done?

Next step
Next steps

- Setting price
- Cost analysis for both manufacturers/service providers and customers
- Approach to evaluating risks and profits
- Bilateral industry dialogue and case studies
Thank you!

Questions?
Liping Jiang
lji.om@cbs.dk
Research projects

CBS Maritime's research is organized into a number of interacting projects with a common reference to the dual relationship between "maritime industry dynamics" and "increasing global integration", but each with their own outline and sub-projects. Below are examples of the central questions being addressed.

NEWS
30.09.2016
The Rise and Fall of the East Asiatic Company
CBS Maritime Expanding Partnership on Governance and Innovation for a Sustainable Maritime Supply Chain

See all news

EVENTS
No current events.
See all events

Some of the projects are funded by the EU 7th framework program (FP7), the Joint Committee for Nordic Research Councils for the Humanities and the Social Sciences (NOS-HS), Canada's Social Sciences and Humanities Research Council (SSHRC), the Danish Maritime Fund, DS-Orient's Fund, and the Lauritzen Foundation.

Organizational Innovation in Shipping, Ports and Maritime Industry
Green Shipping: Governance and Innovation in the Maritime Supply Chain
Blue INNOship - Servitization: Creating the market by understanding price, cost, contracts and financing
Competitive Challenges and Strategic Development Potential in Global Maritime Industries
The Dynamics of Maritime Clusters
The Sources of Maritime Leadership
The Entrepreneurship Dynamics of a Nomadic Workforce
Nordic Shipping in a Global Context
The Climate Challenge for Shipping: Incentives for Reduction of CO2 Emissions
7 thematic seminars

1) Target costing as a strategic tool to commercialize the product and service innovation

2) Pricing management and strategy for the maritime equipment manufacturers and service providers (December 14th)

3) Optimization and handling of risks and cost within the service contracts

4) The strategic decision making of ship owners in investing in maritime equipment manufacturers and service providers

5) Financing of new business models that can promote business and sales within the maritime industry – general

6) Financing of new business models that can promote business and sales within the maritime industry – cases

7) Negotiation and collaboration through international contracts

Optional workshops

1) Lego game workshop on the application of target costing (optional)

2) Workshop on marine equipment leasing (Optional)