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Functional sales

Definition

Functional sales is a generic model for green business models in which companies supply both products and services and are paid according to the functionality they deliver to the customer. The suppliers are usually engaged in the customer's production chain and thus sharing a risk (e.g. investing in the customers production chain).

Recommendations from companies and experts

- Regulation and political incentives to save energy and to use and invest in energy saving products
- More research on which sectors and product groups that functional sales models would be best suitable
- Promote demonstration cases to visualize benefits
- Functional sales tailored product design
- Promote functional sales models in public procurement

Economic benefits

- Lower costs for customers on energy, maintenance and spare parts
- Longer product lifetime
- Costs of use-phase becomes transparent
- Lower risks for the customer due to lower investment level and knowing costs in advance
- Cost savings for the service provider.
- Improved customer loyalty

Environmental benefits

- Energy and material savings

Barriers

- Customer's traditional mindset
- Organisation of bonus systems
- Lack of corporate willingness to make changes
- Lack of integration between divisions in companies to develop functional sales offers
- Public procurement rules may favour traditional business models
- Separation in companies between the financial bodies responsible for investments and the bodies responsible for operation
- Lack of market demand for functional sales solutions
- Lack of knowledge of benefits and life-cycle costs
- Tax regulation

Drivers

<u>Consumers and Suppliers</u>

- The economic benefits
- The environmental benefits
- Regulation
- Branding value in saving energy

Energy Saving Companies (ESCO)

Definition

Energy Saving Companies (ESCOs) develop, install and finance performance-based heating, energy facilities owned by the customers (e.g. a school). The ESCOs are paid according to the extent of realized heating, energy or supply savings.

Recommendations from companies and experts

- Political incentives for energy savings, for example access to funding and integration of ESCO into public procurement
- Introduce a certification of ESCO providers to avoid customer uncertainties
- Standardise contracts, measurement and verification for ESCO projects
- Promote ESCO in local, regional, and government buildings
- Take a strategic approach towards ESCOs to be a Nordic position of strength. Set up an organization, export knowledge etc.
- Promote the ESCO models via demonstration projects and increased information about benefits for customers, providers and financial institutions
- Set up financial support for energy savings by environmental loans, a third-party financing network etc.
- Make new international accounting rules for credit ratings so the customers do not need to carry the liability in their books for the project, and thus potentially make the company's credit rating look worse although the return of investment of ESCO projects is guaranteed

Economic benefits

- Energy costs savings due to reduced need for energy and conversion of energy sources
- Reduction of maintenance costs and prolonged product lifetime
- Indoor climate is often improved leading to less sick leaves and improved conditions for focusing and concentrating
- Spin-off innovations and new technical solutions invented along the implementation
- CSR value and branding for both customers and suppliers
- Educational/practical training leading to increased motivation and inspiration for staff/users

Environmental benefits

- Energy and waste reduction, use of renewables and replacement of oil and gas
- Better comfort from improved indoor climate
- Faster introduction of environmental friendly technologies
- Change of attitude towards a more sustainable behaviour

Barriers

- Traditional mindsets and routines amongst politicians and public procurement staff may hinder long-term contracting and public outsourcing
- Lack of regulation and government support for energy renovations
- Lacking knowledge among customers, consultants and financial institutions about economic benefits of ESCO projects
- Customer's lack of trust to supplier and reluctance to commit to long term contracts
- Lack of focus at customer's management level
- Lack of capital for initial investments and for smaller projects. Projects are perceived to be more risky
- Competition for scarce capital with more traditional investments

Drivers

<u>Consumers</u>

- Saving of energy and costs
- Branding value in saving energy
- Reduced risk of new investments
- Buildings that need to be renovated

<u>Suppliers</u>

- Earnings
- Increased education and information of consumers and financial institutions
- Potential market size
- Regulation and public demand

<u>Consumers and Suppliers</u>

- Regulation to save energy and reduce CO2 emissions
- Rising energy prices

Chemical management Systems (CMS)

Definition

Chemical management Systems (CMS) companies engage in a strategic, long-term contract to supply and manage the customer's chemicals and related services. The providers of CMS are typically remunerated in some form of the customers output (e.g. painted car doors).This gives the provider the incentives to reduce the input products (e.g. paint for car doors).

Recommendations from companies and experts

- Make economic incentives for recycling and for waste reduction, e.g. putting a tax on toxic materials
- Waste management should be included in the business model – not just in theory but in reality
- Develop more simple versions of the business model that may be relevant for SMEs, since CMS is less suitable for SMEs
- Public financial support to assess the potential for broadening the scope of the CMS model to integrate sustainability issues like energy and green house gas emissions
- Customer's whole life-cycle should be outsourced to CMS including waste management so that the full potential is harvested
- The environmental managers in the companies should be part of the board of directors
- Investigate whether there is a potential for local government support for companies' CMS activities

Economic benefits

- Increasing business opportunities for suppliers working with CMS
- Reduction of chemical costs due to CMS procurement
- Reduced risks for dead stock due to just in time delivery and improved data management
- Reduction of administration costs in SMEs.
- Reduction of risk costs related to work safety, production process, deliverance etc.

Environmental benefits

- Reduced use of chemicals
- Substitutes for hazardous chemicals
- Reduced amounts of waste
- Work environment improvement due to safer chemicals
- Potential for Cradle to Cradle set-up

Barriers

- General lack of customer knowledge about the business model: It is difficult for the suppliers to communicate benefits, and it takes a lot of resources. Lack of good reference cases
- Lack of customer knowledge on life-cycle costs that is real cost associated with chemical usage
- It is difficult for the suppliers to get in contact with management. The wrong cost centre sees CMS as leading to job loss
- Customers CEOs seem to be less willing to budget adequately to improve the environmental impact of the company
- Contracting CMS is more complicated than selling/buying products, especially across European countries
- Dependency from long-term contracts making it difficult for customers to switch to other suppliers
- Lack of customer trust to suppliers with confidential process information
- Extra supplier investment for equipment, infrastructure and labour and more fixed cost

Drivers

<u>Consumers</u>

- Reduced production and chemicals costs
- Concentration on core business
- Environmental, health and safety advantages
- Reduce the complexity of chemical management
- Limitation of liability risks
- Efficiency improvement of production

<u>Suppliers</u>

- New business opportunities
- Regulation (like requirement of safety data sheet of all chemicals as the suppliers has the expertise)
- Consolidation of the market and enhanced customer loyalty
- More value from their human resources: expertise and know-how
- Capture added value from customers

<u>Consumers and Suppliers</u>

- Aligned incentives for customers and suppliers
- Better environmental performance
- Partnership for innovation between customers and chemical suppliers

Design, Build, Finance Operate (DBFO)

Definition

Design, Build, Finance Operate (DBFO) companies undertake capital intensive long-term construction projects where private finance, construction, service and/or maintenance are bundled into a long-term contract which allocates risks and responsibilities between the parties. This gives incentives for the contractor to build a building which uses little energy (and other supply functions) and low maintenance costs, since the contractor's returns are linked to performance.

Recommendations from companies and experts

- Ensure the right institutional capacity to manage the projects in the public sector
- More focus on the possible environmental benefits involved in these projects
- Conduct a study on effects, results and evidence
- Adopt a strategic approach to ensure a certain project pipeline
- More innovation-friendly legislation with less administrative burdens, more flexibility and avoidance of contractual lock-in
- Focus on quality as well as the price when choosing supplier
- Promote demonstration projects
- Standardize contracts to reduce transaction costs
- Disseminate lessons learned and increase information about the model
- Unambiguous and robust regulatory framework

Economic benefits

- Projects are kept within budget
- Projects are completed on time
- A more optimal division of risks
- Properly maintained assets innovation; due to the total life-cycle approach and risk division, providers are encouraged to come up with innovative technical / design solutions that help reduce operation and maintenance costs in the long-run

Environmental benefits

- Incentives for reducing energy costs (due to the total life cycle approach)
- Incentives to invest in environmental efficiency for the long run
- Environment-friendly solutions can be designed and developed by technical experts early in the process (because of the integration of the design and construction phase with the operation/maintenance phase)

Barriers

- Lack of insight into environmental impacts
- Lack of comparative studies /evaluations that document benefits
- Transaction costs due to complex procurement model
- Uncertainties concerning the calculation of risk among customers
- Loss of flexibility due to long-term contracts.
- Private finance is as a general rule more expensive than public finance
- Weak regulatory framework
- A lack of political commitment and support

Drivers

<u>Consumers</u>

- On time and within budget delivery
- Properly maintained infrastructure
- Savings and better ‘value for money’
- Innovations from combining design and construction with service and maintenance
- More optimal risk-division

<u>Suppliers</u>

- Long term earnings and profits
- Promising financial asset that is attractive to invest in after project delivery

Sharing

Definition

Sharing companies share goods among a number of users. Instead of owning the product the users have access to the product when it is needed. An overall advantage from a resource efficiency point of view is that the goods are used more intensively.

Recommendations from companies and experts

- A better integration of sharing models with traditional public planning like integration of car-sharing and public transport
- Improve infrastructure for sharing
- Provide more information on lessons learned and economic and environmental benefits
- Identify new ways of using the sharing model
- Better and clear regulation like tax exemption

Economic benefits

- The consumer has no initial costs to purchase the product and no maintenance costs
- New market opportunities for high quality products
- Increased innovation from new markets

Environmental benefits

- Reduced use from sharing items rather than owning the items e.g. car sharing
- Reduced use of resources and less pollution.
- Strong incentive to design the product to withstand impacts from multiple users, improve durability and make remanufacturing possible
- Reduction of products and of need for virgin resources due to higher quality and longer product lifetime
- Improved city environment (less waste, less pollution, improved health

Barriers

- Lack of financing. Unclear or lack of regulation e.g. unclear taxation rules for sharing of personal items
- Lack of knowledge and uncertainty about economic benefits and real costs involved
- Lack of availability or local alternatives. Too few sharing options close to the consumer.
- Preference of ownership e.g. status as car owners, and unwillingness towards sharing personal items.
- Lack of incentives for product manufactures to manufacture products that are designed to be shared, e.g. lacks of incentives to provide energy efficient products

Drivers

<u>Consumers</u>

- No unforeseen costs
- Fewer considerations regarding buying a new product
- Savings

<u>Suppliers</u>

- Earnings

<u>Consumers and suppliers</u>

- Regulation, tax exemption
- Positive environmental effects
- Branding and reputation