Customer knowledge in (co)creation of product. A case study of IKEA*

Abstract

Customers knowledge is an attractive and effective source of ideas for proposals innovative products (services) as well as changes in existing products (services). Contemporary firms recognize the need to co-create product (services) with the participation of customers. The aim of this article is to define customer knowledge, value co-creation and customer co-creation concepts. The activities of IKEA were used to illustrate the issues presented in the article.

Keywords: customer knowledge, value co-creation, customer co-creation, IKEA.


Introduction

Already P.F. Drucker [1999] used to claim that knowledge is the key resource in the 21st century. Knowledge – as a unique resource – provides the foundation on which an enterprise can build its sustained competitive advantage. Knowledge supports the enterprise in any areas where it operates. It enables the company to establish knowledge relationships, through which cooperating entities share their knowledge in business processes [Gummesson 2012]. Until recently, the customer used to be regarded as a potential source of knowledge and perceived as performing a passive role only [Gibbert, Leibold and Probst 2002].

* The article was financially supported by the National Science Centre in Poland, project no. 2014/13/B/HS4/01614.
At present, however, companies are increasingly eager to tap into the knowledge possessed by their customers. This has led to the growing popularity of Customer Knowledge Management, which allows firms to identify, acquire and utilise customer knowledge, in order to boost their revenues, mitigate risk and avoid launching unmarketable products [Gebert et al. 2002]. X.L. Comtesse [2006] claims that we are now, in a sense, departing from the economy which is based on producer knowledge, by replacing it with customer knowledge. This is a kind of revolution which affects the way we think about a modern economy.

Over the last few years the need to establish a closer cooperation with customers and involvement of them in value creation has become more and more apparent [Thomke and von Hippel 2002; Prahalad and Ramaswamy 2004]. Such cooperation clearly appears to be mutually beneficial. On one hand, customers receive an offer which is perfectly tailored to their expectations – in terms of quality and components – and, on the other hand, the company is able to increase its profitability over the long time span. Internet technology plays a key role in the development of this cooperation, by offering an affordable method of business-to-consumer, consumer-to-business and consumer-to-consumer communication. As a consequence, the internet environment makes an ideal setting for working together with customers.

How extensively and thoroughly customer knowledge may be used in business processes depends on industry, although the company itself and the its strategy [Larsson and Bowen 1989; Bitner et al. 1997]. This paper focuses on IKEA, a global group which follows a low-cost strategy1. A low-cost business model is based on a value-for-money advantage, striving to generate profits from low operating costs [Slywotzky, Morrison and Adelman 2000]. Low-cost providers offer good quality products (services) at competitive prices. In order to find a cheaper option, a customer frequently has to get more engaged in the process of service provision. Such an approach differs considerably from the one adopted by more traditional companies, which tend to personalize their client relationships and take over many activities, which would otherwise have to be carried out by customers themselves. Customers of low-cost companies are encouraged to actively participate in their operations, which are facilitated, to a large extent, by self-service technologies.

The article aims to identify the ways in which customer knowledge may be used in creating new products (services) as well as modernizing the existing ones. The last section of the paper, i.e. case studies, presents some examples of

---

1 Other expressions used to refer to low-cost companies include: low-cost competitors, no-frills operators, value-price competitors and price warriors [Kumar 2007, p. 76].
activities undertaken by IKEA in their attempts to create products based on customer knowledge and/or co-create products in collaboration with individual customers, online communities and lead users.

1. Customer knowledge and its types

Customer knowledge is becoming a key intangible asset for companies, as it allows them to create and reconfigure value [Rowley 2002]. In addition to that, it is very likely to be seen as an indispensable source of long-lasting competitive advantage in the nearest future [Claycomb, Dröge and Germain 2005]. The benefits gained from customer involvement in value creation include, as listed by Reichwald and Piller [2006], development of new products, lower costs of innovations, better acceptability of new products and higher customer willingness to purchase these products and appreciate their actual newness. The best value for customers may be created by combining customer knowledge with market knowledge, in order to ensure higher profitability and operational flexibility for the company [Claycomb, Dröge and Germain 2005].

Customer knowledge, embedded in customer relationships, impacts, in a direct or indirect manner, the way the company operates [Zanjani, Rouzbehani and Dabbagh 2008]. According to the division, which is most popular in the literature, we may distinguish: knowledge about customers, knowledge for customers and knowledge from customers [Garcia-Murillo and Annabi 2002; Gebert et al. 2003; Salomann et al. 2005]. Collecting and processing of knowledge about customers is certainly one of the oldest activities within knowledge management, predominantly in the area of customer relationship management. This type of knowledge, apart from basic information about customers, comprises also the data about their current and future needs, wishes, preferable methods of communication, financial capabilities and the way their purchasing behaviour is manifested [Day 2000; Davenport, Harris and Kohli 2001]. The knowledge about customers that the company acquires on its own account is supplemented by the data obtained (often on a commercial basis) from other institutions.

2 Knowledge encompasses data and information. Customer data may refer to, i.e. terms of purchase, methods of payment, number of hits on a corporate website. Such data are collected and recorded using modern IT tools (e.g. CRM, ERP systems) available to the company. The data, having been selected, grouped and compared, become information and are subsequently transformed into knowledge [Kobyłko and Morawski (eds.) 2006].

3 The literature uses also other expressions to define the types of customer knowledge, e.g. knowledge possessed by customers [Rowley 2002] or knowledge retained by customers [Rowley 2006], which may be used by them to reach their own objectives, i.e. in co-learning and innovative processes.
Knowledge for customers covers the data about products, markets and suppliers [Garcia-Murillo and Annabi 2002], used by customers in their purchase decisions. The knowledge addressed to customers does not necessarily have to come from a given company. Other customers, competitors, suppliers and consulting agencies are also a valuable source of such information.

Knowledge from customers includes observations, ideas, insights or information, which are communicated to a company on a voluntary basis. Such knowledge may be collected from questionnaire surveys or derived from observations of customer behaviours. It is recommended that it should be used in innovative processes (e.g. to generate ideas) or to improve existing products and services [Thomke and von Hippel 2002].

H.A. Smith and J. McKeen [2005] suggest that this classification should be completed by adding knowledge with customers, which is sometimes called ‘knowledge co-creation’. A customer, as an equal partner, participates in the development of knowledge [Gibbert, Leibold and Probst 2002], including the type of knowledge related to creation of new products or services [Xuelian, Chakpitak and Yodmongkol 2015]. The co-created knowledge is based on dialogue and cooperation with the company which applies appropriate methods and tools in order to enhance the interaction and the process of knowledge creation [Smith and McKeen 2005]. Customers are perceived as members of a value network, who create value jointly with the company. The process of co-creation is affected both by the customer and by the company [Sawhney and Prandelli 2000]. From the customer’s point of view, the key factors are the ability to contribute and the motivation to create knowledge, as well as their confidence in the company. The company is expected to possess the necessary resources and competences, to be able to absorb, share and store the knowledge appropriately inside the organization.

In addition, customer knowledge may be discussed using other, generally applicable types of knowledge, such as explicit customer knowledge and tacit customer knowledge, individual customer knowledge and social customer knowledge, as well as core customer knowledge and peripheral customer knowledge [Sawhney, Verona and Prandelli 2008]. Today’s companies are increasingly willing to attempt at capturing tacit customer knowledge, they appreciate the knowledge generated by the community and take advantage of services rendered by so-called knowledge brokers.

Enterprises work on broadening their range of research methods and techniques, eager to obtain the knowledge about hidden, hardly expressible and, in some cases, unconscious needs and expectations of their customers. For this purpose, they opt for unconventional solutions [Sawhney, Verona and Prandelli
2008], e.g. observation of customers in their natural environment [Leonard and Rayport 1997], dialogue and collaboration with lead users [von Hippel and Riggs 1996], market experiments by use ‘probe and learn’ [Lynn et al. 1996], models and metaphors relating to consumers’ behaviour and mentality [Zaltman 1997, Zaltman and Zaltman 2010].

In their innovative processes, firms may use the knowledge possessed by individual customers but also the knowledge originating from combined skills and competences of a group of people. E. Wenger [1998] coined the concept of ‘community of practice’, which means a group of people involved in a process of learning from each other in a specific field of human activity. R. McDermott [1999] refers to it as a knowledge community. By forming such a community, its members may put their efforts together, while improving currently available products and services, looking for new applications and developing novelties and new concepts [Sawhney and Prandelli 2000]. A company should be interested in finding or building such communities, in order to capture the knowledge and use it in its innovation efforts, enhance its competences of encouraging creativity and strengthening the involvement of community members.

A recommended solution may be the use of so-called knowledge brokers, who collect knowledge resources and render them accessible based on a clearly defined criterion. In some cases, they also create new knowledge – so-called brokered knowledge [Meyer 2010]. Acting as an intermediary appears to be a convenient method of reaching the resources of customer-generated knowledge, which would otherwise be inaccessible or highly expensive for the company to acquire.

2. Co-creation of value with customers

Currently the traditional model of value creation, i.e. the company-centric view, in which a customer used to remain outside the value chain, is being challenged [Prahalad and Ramaswamy 2004]. Instead, the customer-centric view means moving away from the corporate logics of value creation. Customers are seen as an integral part of a value creation system, which may have an active impact on the value they co-create with a company. This implies that the company has to interact with its customers, in order to co-create value. Right now consumers demand the offers which are better tailored to their personal needs. According to Prahalad and Ramaswamy [2002], the customer’s role has evolved – from being a passive recipient of a market offer to becoming an active co-creator. As a result, companies “[…] must learn to co-create value with their customers”. The cooperation and knowledge sharing with customers – by engag-
ing them pro-actively in the development of new products – may contribute to the creation of new value [Sawhney, Verona and Prandelli 2005]. Customers may become a source of innovative ideas or improvements but they may also test products to detect any potential faults before these products are commercialised [i.a. Nambisan 2002; Hoyer et al. 2010]. Therefore, value co-creation may be defined as corporation processes related to “[…] creating goods, services and experiences in close cooperation with experienced and creative consumers, tapping into their intellectual capital, and in exchange giving them a direct say in (and rewarding them for) what actually gets produced, manufactured, developed, designed, serviced, or processed” [Trendwatching 2006].

3. Involving customers in product development

Customer relationships are a source of knowledge which may have a direct or indirect impact on a company’s operations [Zanjani, Rouzbehani and Dabbagh 2008]. The use of customer knowledge in the development of new products and services seems to be particularly desirable. Customer participation, which occurs in the conceptual phase (generation of ideas and development of product concepts), as well as in the productive phase (design and testing of prototypes or products), considerably accelerates the innovative process, helping both parties to achieve a better value. Once, such a point of view is adopted, customer cooperation may come in two forms [Romero and Molina 2011]:

• support for continuous improvement of existing products, which enables customers who look for specific effects to actively co-produce products or services;
• customer participation in a joint innovation process by voluntarily sharing ideas, in order to develop a new generation of products and services.

The degree of customer involvement in product co-creation is connected with their abilities (e.g. knowledge, skills and experience), readiness to participate and the right understanding of their role [Risch and Kleine 2000]. Customers are expected to demonstrate the skills needed to operate special IT tools (e.g. product/sales configuration tools), which intensify their involvement. Customer readiness to co-participate is often determined by the selection of appropriate incentives of tangible (e.g. cash bonuses) or intangible (e.g. prestige) character.

The role that customers play in value co-creation and achievement of personal gains may shift from being a passive object of observation and information provider to becoming active participants, who put in their own intellectual, physical and financial resources. Some customers may be involved in one stage of a new product development process only, in order, e.g., to select ideas or test prototypes. Others,
acting as experts in their fields, get in touch with a company at various stages of
the product development process. A special category of customers are so-called
lead users, who create innovative products that go beyond the standard market
expectations [von Hippel 1988]. They are frequently motivated to search for
novel solutions by the fact that the products they would like to have to satisfy
their sophisticated needs are not available on the market. Some customers per-
form the activities which have formerly been reserved for a company’s staff
only, thus turning into co-producers. The literature refers to these customers –
who perform the double role of consumers and producers – as partial employees
[Mills and Morris 1986], prosumers [Toffler 1980] or working consumers [Voß
and Rieder 2005]. When looking at the division of duties, such terms as ‘cus-
tomer outsourcing’ – which is also called micro-outsourcing, due to a relatively
narrow range of delegated tasks – may also be used [Varadarjan 2009].

4. A case study of IKEA

In the qualitative research the case study method – based on a thorough ex-
amination of a single case (i.e. IKEA), using a number of data collection and analy-
sis tools [Creswell, 1998] – have been employed. The qualitative approach to the
research was adopted to gain a better understanding of the examined phenomenon
and describe it in a more comprehensive way. The details about the case were de-
derived from secondary sources, such as corporate documents (e.g. annual reports for
the years of 2011-2014) and the content of websites and databases.

IKEA is a global retailer and a producer of furniture and decorative items. It
has 315 stores, selling the range of approx. 9,500 products in 27 countries. The
IKEA’s vision is to create a better everyday life for the people by offering
a wide range of well-designed, functional home furnishing products at prices so
low that as many people as possible will be able to afford them. Scandinavian
style furniture is associated with simplicity, modernity and functionality, but
also family life and environmental friendliness.

5. Educating and inspiring IKEA’s customers

The main sources of knowledge (and inspiration) for customers are: a cata-
logue, a website and so-called experience rooms. A catalogue – as hard copy,
online or a mobile application – is the basic communication tool for IKEA. In
2014, 217 million paper catalogues were printed in 30 languages. The IKEA’s
website, apart from product data, contains also some advice on interior design.
The aim of the website is also to serve as a platform for integrating the customer
community (e.g. IKEA Family). In 2014, the website generated over 1.5 billion hits. IKEA manages corporate profiles in social networks (e.g. a Facebook fan page), posting photos and multimedia content about the company and its products, but also uses the networks to get users involved in the development of new products or the improvement in quality of the existing items (e.g. IKEA’s online catalogue). An innovative merchandising solution is the way furniture is displayed in the interior arrangements which are designed to resemble ordinary rooms. Customers may move around the exhibition, open drawers and cabinets, sit on armchairs, etc. The way furniture is shown, together with all the additional decorative items (e.g. framed photographs on bedside tables) is supposed to stimulate creativity and encourage customers to come up with their own ideas for interior arrangements.

IKEA shares knowledge with customers, acting as an infobroker, the only difference being that the company does not charge its customers for that. Some examples may be found in reports on consumer behaviour, such as *IKEA Life At Home* (lifeathome.ikea.com), which deals with the home life around the kitchen (e.g. preparing meals at home, trying to save energy and water) and the morning habits the residents of the household may have (e.g. how they wake up, talk to their family). Users are offered access to a special IT tool to analyse the collection of data (*IKEA Data Mixing Board*), which allows customers to generate and compare details about various types of activities (e.g. shopping habits).

6. New IKEA products based on knowledge about customer

Customer knowledge comes from customers themselves, through the use of traditional methods and techniques employed in the research on consumer behaviour patterns and the observation of customers in their natural environment. In line with IKEA’s motto: *to create products that make life at home better, we need to understand how people live*, the company carries out wide-ranging studies, aiming to find out people’s home habits in various parts of the world. The findings of the research such as *IKEA Life At Home* inspire IKEA design teams to create comprehensive solutions, well-tailored to the needs pre-identified in the studies. When the research showed that customers used only 20 percent of the clothes they kept in their wardrobes, partly because they could not find the piece of clothing they needed at the moment, the designers came up with KOMPLEMENT – a multi-functional storage system for clothes. In addition, customers can deal with the design on their own, using PAX – a planning programme. Another example is KNAPPER – a stand-alone mirror, equipped with a rail for clothes hangers. That way the company wanted to solve the problem
many people experienced in the morning, i.e. spending too much time on selection of clothes, before leaving home.

IKEA learns about its customers by watching them in their natural environment or very similar conditions. Every year, IKEA employees visit more than 100 households in various parts of the world, in order to find out as much as possible about people’s everyday lives. An example of the initiatives which are meant to discover the real household needs of young Americans is IKEA Home Tour (www.hometourcampaign.com). IKEA employees, travelling across the United States, perform impressive home makeovers. Through face-to-face contacts and casual conversations with the residents, it is easier to discover their hidden needs and dreams about the ideal household.

Another source from which IKEA collects customer knowledge are the observations made by trend spotters from several big cities where the global trends emerge (e.g. New York). Forecasts of future needs and consumer behaviours concern interior design, fashion, cuisine, art and music. The popularity of the trends towards sustainable development and increased environmental awareness can be seen when looking at the products which have been added to the range, such as environmentally-friendly equipment (e.g. LED bulbs and lighting, garbage sorting bins), furnishings made of natural raw materials (e.g. IKEA PS table made of fast-growing bamboo) or recycled materials (e.g. GOSA SYREN pillows with filling made of recycled plastic bottles).

By cooperating with other entities, IKEA gains access to new knowledge resources. Examples of such cooperation in the area of new product development are joint projects carried out by IKEA and its partners – such as Future Kitchen with Future Laboratory, a project aiming to identify the future directions in kitchen aesthetics and functionality or a project with Mobil Life Centre, focusing on examination of the impact that mobile technologies have on household members’ behaviour. Such projects have led to a number of innovative solutions, which are designed to facilitate people’s home lives in the future e.g. a prototype of an interactive kitchen table or a lines of IKEA products which are already available in shops and allow smartphone users to charge their phones in a wireless way.

7. Customer activism in creation of new or modernized products (services)

7.1. Individual customer knowledge in co-creation processes

According to the IKEA’s concept, a customer takes on the role of a service co-producer. The company clearly defines the scope of duties to be performed by customers on their own, hoping to lower their costs of purchase, and provides
them with additional competences and advanced tools (e.g. an interactive configurator). In order to bring prices down, customers design their interiors, compile shopping lists, select and collect items from a self-service warehouse, carry these items to their own vehicles and, ultimately, assemble furniture using an assembly manual. If they need staff’s assistance – when working on their design, measuring the flat, choosing the required fittings, transporting or assembling the furniture – they have to pay for such a service.

Involving customers in production processes, apart from reducing costs of products, makes them also better suited to customers’ specific needs. For instance, the NORNÄS collection, made of raw pine wood, allows buyers to customise their bookshelves, benches or tables. To personalize the furniture and make it look unique, customers may choose paint, varnish or lacquer of their liking.

IKEA HOME PLANNER 3D is an example of an IT tool which supports customers. It takes customers through the designing (selection) process and assists them in making a personalized product out of ready-to-use elements (modules). Customers may use the interior design software to create their own interior arrangements (e.g. a kitchen, a dressing room or a living room). A special application enables them to specify the shape and dimensions of a room, virtually lay out the pieces of furniture and any extra fittings or decorations. A three-dimensional design preview function makes planning much easier. Having completed their planning, customers may print out the design, take it to the shop and pick up the necessary elements themselves. The possibility to generate cost estimates for their own designs is a very useful feature. Customers, in their designing efforts, are supported by the system of augmented reality. A special mobile application of the IKEA catalogue (IKEA Catalogue app) enables them to plan, in a virtual way, where to put pieces of furniture in their homes. The new technology allows customers to test over 400 products which are available in the IKEA catalogue.

Customer knowledge and creativity is a significant potential, which may be harnessed to create innovative products and solutions. A special collection of IKEA soft toys shows how children’s imagination and ingenuity can be used. Based on the children’s drawings (designs) of their most favourite toys, prototypes were created and then transferred to production. The designs sent in to a global competition – Soft toy drawing competition – were reviewed by a group of IKEA experts. Limited editions of ten soft toys, inspired by young customers’ imagination, will reach stores.

7.2. Virtual customer communities in co-creation processes

By building virtual communities companies can get a new environment for co-operation with customers, who would otherwise – when using different channels – be much more costly to reach. Through their membership in an online
community, users have an opportunity to share their knowledge and experiences in a given field with others. Virtual platforms offered by IKEA – such as e.g. IKEA SHARE SPACE (www.theshare-space.com) in the United States or Hej! Community in Germany – help their users to find inspiration, while acting as a source of inspiration for others, at the same time. Registered users can design their own virtual room, furnished with IKEA products and accessories, adapted to their own preferences and reflecting their own visions. A special member zone – IKEA FAMILY – presents the modern interior ideas generated by IKEA designers or by customers. Community members support one another in the search for personalised solutions. An interesting independent (not related to IKEA) initiative is a fan-run website of IKEAHACKERS, which is also called ‘a community of crazy IKEA fans’. Here a ‘hacker’ means somebody who tries to break the traditional style of Scandinavian furniture. The suggested modifications are not meant to lead to the creation of a completely new product but just to introduce some changes to the existing product (e.g. by changing its colour) or to its fittings. That way new – often unconventional – solutions are offered, in terms of function or aesthetics, with a lot of artistic input. They are better tailored to customers’ individual needs and expectations. Designs shared by community members contain the photo documentation as well as manuals describing how to produce them, including a list of materials and tools needed.

By addressing their question to a wide group of customers via appropriate websites the company takes advantage of a non-standard source of knowledge. IKEA in Norway invited users of social networking sites to co-create their online catalogue. Their task was to take a photo of their favourite piece of furniture from a paper catalogue page and place it on such websites as Facebook or Instagram. To encourage people to participate in that project, each week one participant had a chance to win the chosen item. The photographs sent in by the users were collected into a very unique catalogue – Social Media Catalogue Online.

7.3. Lead Users and Innovation Labs in new product development

When looking for innovative solutions, IKEA reaches for the knowledge, creativity, ingenuity and experience possessed by its lead users. IKEA, together with the Interactive Institute Swedish ICT and VeryDay, set up Innovation Labs to start the cooperation with these customers and stakeholders who are regarded as lead users in a given area. An example of the joint projects is the search for the ways to live a sustainable urban life. The IKEA’s objective is to encourage town dwellers to cycle more in their everyday lives. This project, called the Urban Biking Eco-System, examines the interdependencies between people, prod-
ucts (here: bicycles) and the natural environment, in the context of dynamic changes in residents’ lives (e.g. raising children, bicycle injuries, moving).

Conclusions

IKEA is increasingly eager to use customer knowledge in the process of creating new – or modernising existing – products (services). This applies to knowledge about customers (e.g. IKEA Home Tour), knowledge from customers (e.g. Soft Toys Idea), as well as knowledge with customers (e.g. Innovation Labs). The company is also willing to share its customer knowledge (e.g. IKEA Life At Home reports), thus performing, in a sense, the role of a knowledge broker. It uses an array of methods and tools, which involve customers in product development processes at the conceptual stage (e.g. idea contests, discussion forums) and at the productive stage (e.g. a product configurator, a design application, mass customisation and communities creating innovations).

References


