KADIR HAS UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES

ANALYZING AND MEASURING EMOTIONS ON CUSTOMER CO-
PRODUCTION PROCESS THROUGH EMPIRICAL RESEARH ON IKEA
CUSTOMERS IN TURKEY

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PRODUCTION PROCESS THROUGH EMPIRICAL RESEARH ON IKEA
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ANALYZING MEASURING EMOTIONS ON CUSTOMER CO-PRODUCTION
PROCESS THROUGH EMPRICAL RESEARCH ON IKEA CUSTOMERS IN
TURKEY

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ABSTRACT

ANALYZING AND MEASURING EMOTIONS ON CUSTOMER

CO-PRODUCTION PROCESS THROUGH EMPRICAL

RESEARCH ON IKEA CUSTOMERS IN TURKEY

Işıl Karataş

Master of Art in Design

Advisor: Asst. Prof. Ayşe Coşkun Orlandi

August, 2012

Today's consumers are prioritizing their expenditure and they think about what's really worth it. At this point "Do It Yourself" (DIY) appears as a valuable alternative. For most of the people the underlying driving force is financial concerns, which are also the starting point of self assembly industrial products. On the other hand acceptable amount of consumers prefer actually making something themselves. This is an important element which makes DIY appealing. So DIY is not just a strategy for being in control of expenditure, it also provides emotional value as a process. When DIY is gaining importance, at the same time companies started to recognize the value and importance of customer participation at the various level of the value chain. This participation may involve customer's input from the ideation to the production and delivery of a product as well as services. Although DIY is a huge market and companies have realized the importance of customer participation, it still constitutes relatively unexplored domain both of the practices and also little is known about its emotional aspects. Swedish company IKEA is one of the companies that incorporate DIY activities and co-production. With the idea of integrating self assembly and delivery into the product development process, IKEA reduces its prices and makes its products affordable for everyone, which is the main concern of DIY activities and also with this idea it makes customers participate the creation of value by making them co-producers. This study investigates self assembly product experiences and user emotions through an empirical research on IKEA customers

and mainly based on literature review and collected data from the empirical field research conducted in Istanbul IKEA store.

Keywords: Do it yourself, self production, emotion, product design, co-production

ÖZET

ORTAK YAPIM SÜRECİNDEKİ TÜKETİCİ DUYGULARININ IKEA TURKİYE

MÜŞTERİLERİ ÜZERİNDEN DEĞERLENDİRİLMESİ

Işıl Karataş

Tasarım, Yüksek Lisans

Danışman: Yrd. Doç. Ayşe Coşkun Orlandi

Ağustos, 2012

Çoğu kişiyi kendin yap etkinliğine yönelten konu maddi kaygılar olsa da, diğer taraftan büyük bir kitlenin tercih sebebi çoğu şeyi kendi başlarına yapmayı sevmeleri ve duygusal tatmin sağlamalarıdır. Kendin yap etkinliğini tasarım disiplini açısından değerli kılan önemli noktalardan biri de budur. Bu noktada kendin yap etkinliği sadece harcamaları kontrol altında tutmak için bir strateji olmanın dışında duygusal değerler de içermektedir. Kendin yap etkinliği giderek önem kazanırken bir diğer taraftan da firmalar tedarik zincirinin çeşitli aşamalarında tüketici katılımının önem ve değerini farketmeye başladılar. Bu katılım fikir aşamasından üretime, ürün veya servislerin dağıtım ve nakliyesine kadar farklı alanlarda tüketici katkısını içerebilir. Kendin yap ürünler büyük bir pazar oluşturmasına ve firmaların tüketici katılımının önemini farketmelerine rağmen, kendin yap kavramı tüketim ve pratik açısından keşfedilmemiş bir alan teşkil etmektedir ve kendin yap etkinliğinin duygusal yönüyle ilgili tasarım literatüründe çok az veri bulunmaktadır. Kendin yap ve ortak yapım etkinliklerini ürün geliştirme süreçlerine dahil ederek özellikli bir yapıya sahip firmalardan biri İsveç kökenli ev eşyası ve mobilya firması olarak sınıflandırılabilecek IKEA'dır. Tüketicinin kendi nakliye ve montajını yapması ile IKEA fiyatlarını düşürerek herkes için erişilebilir ürünler sunmaktadır. IKEA üretim zinciri içinde kendin yap etkinliği temel amaçlarından biridir ve aynı zamanda tüketicileri ortak yapım aşamasına dahil ederek kendi değerlerini yaratmalarına olanak vermektedir. Bu çalışma kendin yap ürün deneyimi ve kullanıcı duygularını

IKEA Türkiye müşterileri üzerine yapılan bir saha araştırması üzerinden incelemekte ve ağırlıklı olarak literatür taraması ve ampirik araştırma sonuçlarına dayanmaktadır.

Anahtar Kelimeler: Kendin yap, duygu, ürün tasarımı, ortak yapım

To my Dad and Mom

Acknowledgements

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Chapter 1

1 Introduction

1.1 Problem Statement

Today's consumers are prioritizing their expenditure and they think about what's really worth it. At this point "Do It Yourself" (DIY) appears as an attractive alternative. For most of the people the underlying driving force is their financial concerns. On the other hand acceptable proportion of consumers prefer actually making something themselves. This is an important element which makes DIY appealing. So DIY is not just a strategy for being in control of expenditure, it also provides emotional value.

At the same time companies started to recognize the value and importance of customer participation at the various level of the value chain. This participation may involve customer's input from the ideation to the production and delivery of a product as well as services. Companies try to create systems that engage customer in activities that were previously done by the company. Published research findings provide support for the idea that new technologies allow companies to benefit from customer participation because it is related to customer satisfaction and customer loyalty (e.g., Bagozzi and Dholakia 2006; Dellande, Gilly, and Graham 2004;

Bendapudi and Leone 2003). So, if customers participate in the creation of their goods, there is a higher satisfaction of the customer's personal needs.

There are several types of customer input ranging from the ideation of the product to the production or delivery of the product. A consumer may make or build a product by following step-by-step instructions (e.g., assembling an IKEA bookcase, cooking according to a specific recipe, building a model air plane) In this case, the process of making, modifying, or creating a product may require consumer's physical involvement (hammering shelves, cutting and mixing ingredients, gluing pieces together). In another example, a consumer may go online and design parts of a product (e.g., NIKE sneakers, T-shirts). This time, the process requires the consumer's intellectual involvement (choosing and matching colors of a sneaker, working on a t-shirt design). In another case, a consumer may both design and build the product (e.g., designing and building a patio with materials from Bauhause, cooking creatively without recipe, sewing one's own design). Here, the consumer would be involved both physical and intellectually in the production process of the product (Atakan, 2011).

Swedish company IKEA is one of the companies that incorporate DIY activities and co-production. It was based on the idea that if the price is right, customers are ready to travel out of town locations, queue, collect their purchases and assemble the furniture themselves (Doole and Lowe 2005). The mission of IKEA, which was defined by its founder, is to offer wide variety of functional furniture and home accesories, at an affordable price and quality for a majority of people. With the idea that customers own delivery and assembly IKEA reduces its prices and makes its products affordable for everyone, which is the main concern of DIY activities and

also with this idea it makes customers participate the creation of value by making them co-producers. Although the mission of IKEA is about functionality, quality and affordability, and they do not mention about the emotional experiences of the users as the starting point of the company, the self delivery and self assembly process of the products should have emotional aspects to the customer, because the mission of IKEA is connected with DIY and co-production activities.

How would you evaluate the IKEA bookcase you assembled, the dinner you cooked or the kitchen you designed? Would it be the same if the product was already made and ready to use? Do you think your physical and/or intellectual involvement in the production process makes a difference on your sensations about the product? There are studies which show that consumer involvement in the production process of a product affects pricing (Norton 2009) and psychological ownership of the product (Pierce, Kostova, and Dirks 2003) as well as satisfaction with the company (Bendapudi and Leone 2003). However, no prior studies have considered the underlying appraisal patterns and focused on emotions elicited from consumer involvement in production process of a product.

I assume IKEA's co-production concept convey emotional effects on customers and constitute emotional bonds between user and the product, because it enables consumer to participate in the production process – unlike other ordinary already made and ready to use products. Therefore these products provide different aspects of user experiences together; as a consequence they evoke diverse emotions. Based on these ideas this study analyzes emotional dimensions of customer participation in production process through IKEA customers in Turkey.

1.2 Scope of the Study

This study presents an insight on the relationship between IKEA's self-assembly approach and user emotions with regard to product design and analyzes the qualities of these products that evoke emotions.

The following section reviews the findings from extended DIY, customer co-production and emotion literatures, and elaborates on how they form the theoretical basis of our investigation. Then, we present our findings from the field research. The study aims at emotional side of self-assembly products, the emotions they evoke and their qualities that provide emotional experience.

Accordingly, main research questions of the thesis are as follows.

- Which qualities of self assembly products provide emotional experience?

- Which emotions are elicited from self assembly experiences of products?

- What are the appraisal structures behind the elicitation of these particular emotions and how this knowledge is integrated into product design?

To answer these questions, IKEA phenomena and its relations to DIY and co-production activities will be analyzed, then the meaning and definitions of emotion will be examined from psychology and design perspectives. To complement the findings of the literature, an empirical field research will be conducted on IKEA customers in Turkey in order to investigate emotional responses of customers towards self assembly experience and products and the results will be presented.

1.3 Structure of the Thesis

This thesis is structured into five chapters. Figure 1 shows the diagram representation of the thesis structure. The first chapter provides a brief overview to the research subject and research questions.

Chapter two begins with the concept of customer co-production and defines and explains related terms and activities, then deals with tangible and intangible qualities of DIY products, which results in emotional experience. It elaborates on this literature in order to understand its basics with explaining definitions and roots of DIY, also looking into motivations and outcomes of DIY experiences. Also introduces a brief history of IKEA and positions IKEA concept and its philosophy.

Chapter three explores dimensions of emotions from psychology and design perspectives. It aims at focusing emotions from psychology literature and summarizes definitions, theories and methods of measuring emotions. Then emotions are analyzed from design perspective and product emotions are explained together with product emotion measuring methods.

In chapter four, emotional responses towards self-assembly products are explored. This chapter covers the design and conduct of the field research. Then presents the results and analysis of the study together with general discussion on emotion related aspects and emotional content of self-assembly products. The findings are supported by the findings of preceding literature research.

Chapter five elaborates the findings of the field research. Also mentions about limitations of the study and give suggestions for further researches.
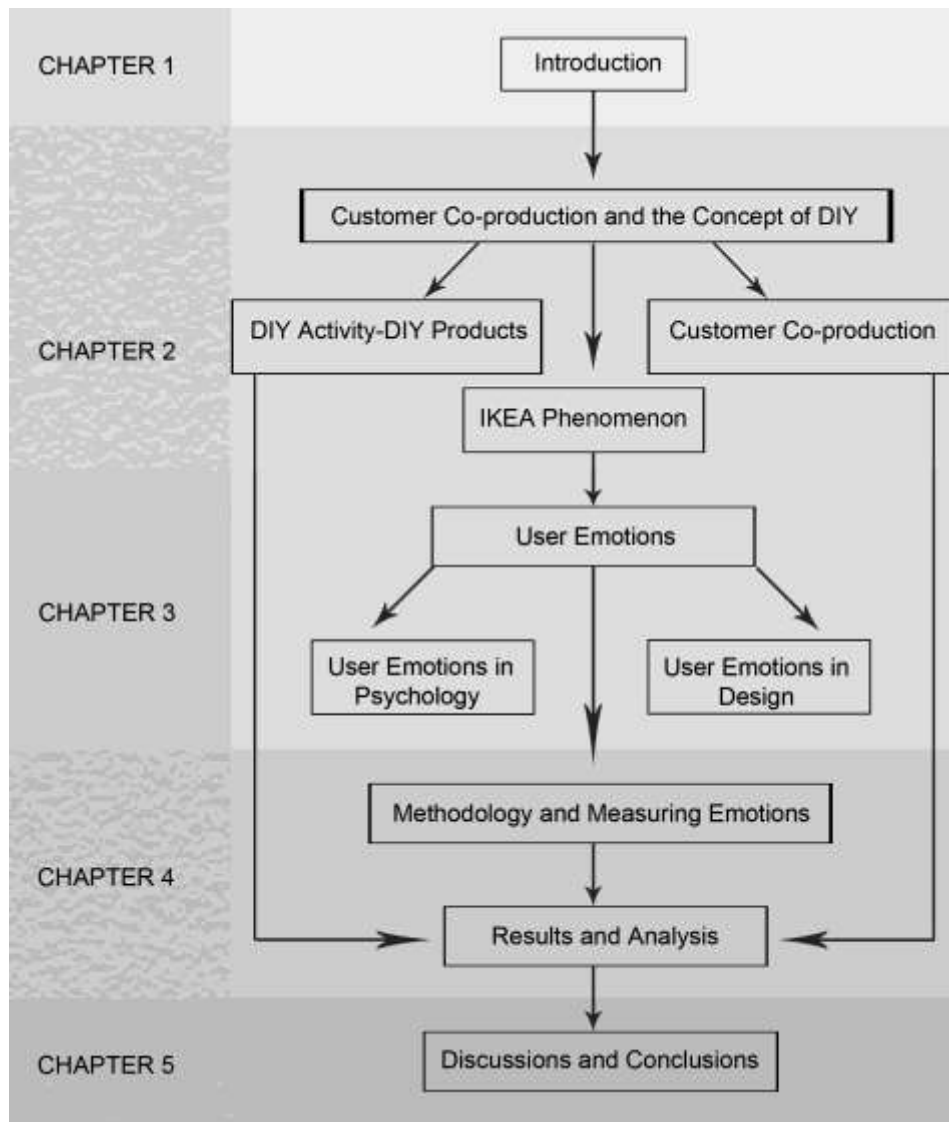
Figure 1.1 Diagram Representation of the Thesis Structure

Chapter 2

2 Customer Co-production and the Concept of Do It Yourself

2.1 The Concept of Customer Co-production

Customer participation is a growing trend in the production of goods and services. As Prahalad and Ramaswamy (2000) state, the image of the customer is changed from a passive audience and consumer to an active co-creator of value, as a result organizations started to view their customers as resources which contribute to the production process with their knowledge and labor. In co-production there is a collaboration between customers and service providers because customers are directly involved in the design, delivery and marketing of goods and services they consume. Although marketing literature concentrates attention on the economic aspects of this collaboration, there is not any interest on customers psychological responses about this participation (Bendapudi and Leone, 2003).

$$E \quad + \quad P \quad = \quad C$$

Expertise   **Partnership**   **Creation**

Customer: Working together   With the objective
His/her own life,   as equals,   of producing
Experiences, Dreams   celebrating each   something
Company: other's expertise
Providing support,
Opportunities, Bureaucracy
(How to get there)

Figure 2.1 Mello's Co-production Equation (Coproductionnetwork, 2012)

2.1.1 Defining Co-production

The term co-production has emerged as a way of describing the process of collaboration among customers and companies to make success of their jobs. In the context of service-dominant logic Lush and Vargo (2006) defined co-production as "participation in the creation of the core offering itself". It is a shared inventiveness, co-design or production of related goods among customers and any other partners in the value network (Lush and Vargo, 2006). Another definition from Etgar (2007) sees co-production as consumer participation in the performance of the various activities performed in one or several of stages, like intellectual work of initiating and designing, resource aggregating and processing activities which lead to creation of outputs. Co-production includes all collaboration forms between consumer and production partners. According to Wikström (1996) co-production is a consumer-producer social interaction and adaptability in order to get extra value of products and services. Also Bettencourt et al. (1997) defined co-production in connection with the involvement in the production process of services for an effective service delivery. This mutual relationship between company and the customer has benefits for both sides. It provides cost reduction and efficiency for the company and better service or product experience for the customers.

On the basis of the presented literature it is inferred that there is a continuous and dynamic role exchange between companies and the customers, which makes customers active participants in every step of the production process through maintaining their emotional and cognitive involvement. As a consequence customers are considered as human resources of the organization. With the implementation of co-production concept, firms' customer perspective has been shifted. Customers are

no more thought of a recipient of values, products or services determined by the firms, now they are active partners in the production and delivery processes (Bettencourt 1997, Bendapudi and Leone 2003). All the definitions of co-production imply that customers are important resources in design, delivery and marketing of products and services, as they supply knowledge, skill and labor to organizations.

2.1.2 Engaging in Co-production

Customer adaptation into co-production activities seems to be related with a strong social relationship with customers and the company, however as Bendapudi and Leone (2003) state this type of relationship can be an obstacle, if the customers get used to relying upon the firm about providing products and services. They claim that after indulging customers for many years, it is hard to ask them to do everyting partially or fully by themselves as this may cause customers to become disappointed with the firms new self-service strategy (Bendapudi and leone, 2003). Therefore companies should think carefully and pay deeper attention in order to maintain the loyality and satisfaction of the customers.

Engaging in co-production is related with time as it is a major source that consumers use. The amount of time used in each situation depend on the piece of works involved and the skill of the consumer in the implementation of the relevant task. As time is a scarce resource for all people, its use in co-production reflects economic, social and psychological costs for the consumer. Consumers who have discretionary time are more prone to engage in co-production activities. Also consumers decide to move into co-production or to avoid such involvement by realizing a cost-benefit

analysis that evaluate the benefits they expected to acquire from co-production and weighing them against the relevant costs of engaging in such activities (Etgar, 2007).

A primary advantage of co-production is customization which makes it appealing for customers. Co-production gives them the chance to be an active participant in the production and delivery of products and services, which gives customers the potential to customize their worlds (Bendapudi and Leone, 2003).

Co-production can also introduce social benefits. As Holbrook (1999) states, it may be an important motivation to seek status and social esteem with co-production activities. In addition with provided skills, consumers can have further communications and dialog with their co-production partners. Participation in networks of activitiy brings social contact values, like the pleasure of sharing experiences with people who has similar interests and desires (Berthon and John 2006). Co-production enables consumers to become a member of actual and virtual coproduction societies and social networks (Achrol and Kotler 2006) which comprise of other consumers and co-producers (Etgar, 2007). Another motivation of the consumers about co-production is to satisfy their need of self expression and uniqueness (Tian et al. 2001) and to exercise and use their personal hidden inherent capabilities which they do not use in their daily routines (Holbrook and Hirschman 1982, in Etgar, 2007)

2.1.3 Customer Co-production and Related Terms

Co-production is the situations in which consumers collaborate with firms and other consumers to produce valuable things and it is generally defined in relation to

customer participation and involvement, as it incorporates both concepts in its core. Of course not every customer participation or involvement can be considered as a full customer production, on the other hand any production process can not be completed without the involvement of customers and participation in the production process (Baqer, 2006).

Rodie and Kleine (2000) defines customer participation as "a behavioural concept that refers to the actions and resources supplied by customers for service production and/or delivery. Commonly, in participation customers activelly involve in service production and delivery process with physical actions or giving resources. As a result of this action it is expected to achieve pleasing outcomes for both customer and service companies (Baqer, 2006). Cermak and File (1994) defined participation as "the customer behaviors related to specification and delivery of a service" and also involvement as "the personal relevance or importance a product has for a consumer". Moreover they explained the difference between these two terms in relation to attitude and actual behavior, according to their description involvement is the attitude and the state and participation is the actual involvement as behavior. As there are different degrees of customer participation in the production process, Bendapudi and Leone (2003) describe customer participation in relation to the degree of customer's involvement in the production and delivery processes. The product or the service can be produced completely by the company, completely by the customer or by the collaboration of the company and the customer (Bendapudi and Leone, 2003). So the terms involvement and participation usually are different from one situation to another depending on the type and length of the firm-customer relationship (Cermak and File, 1994).
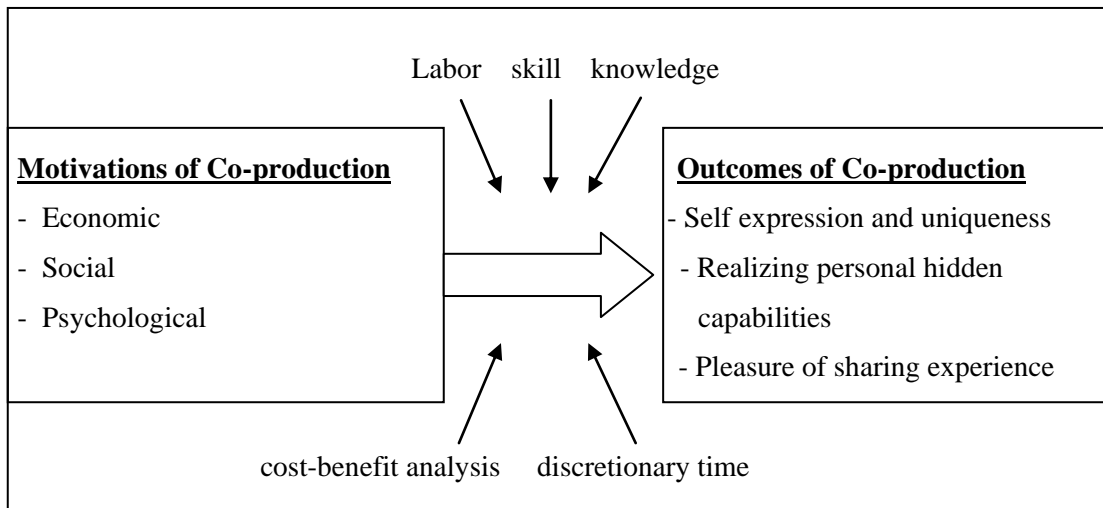
Figure 2.2 Diagram Representation of Co-production Values (analyzed and combined together from Cermak and File (1994), Bendapudi and Leone (2003) and Baqer (2006)).

2.1.4 The Stages of Customer Co-production

When customers directly involve in service delivery, they can be considered as temporary members of the company as they contribute to the development and delivery of service quality. These involvements have different stages. Bettencourt (1997) defines a very interesting at the same time an essential model about customer co-production concept. According to his model, customers have three major roles as partial employees : customers as promoters, human resource and consultants. On the basis of Bettencourt's study Arevalo (2001) classify tree stages of customer co-production : 1. Pre-production, 2. Product development, 3. Post-production. Table 2.1 which is analyzed and combined together from Arevalo (2001) and Bettencourt (1997) shows the role of the customer at different stages of co-production

Stages of Customer Co-production		
Pre-production Phase (Customer as Consultant)	Product Development (Customer as Human Resource)	Post-production Phase (Customer as Promoter)
-providing new ideas - providing suggestions for developing and improving products -defining a new need - determining how to satisfy a need - leaving complaints and suggestions	- producing - designing - interacting with tools and with the employes of the company - engaging their own product	- suggesting company - spreading favorable word of mouth - promoting the company - recomending the company

Table 2.1 Role of the Customer at Different Stages of Co-production

2.1.4.1 Co-production at the Pre-production Phase

At this phase customers participation is a leading source of information for the firm. Customers can provide new ideas for creating new products and services or enhancing the existing ones (Bettencourt, 1997). Customers can be considered as consultants at this stage while providing suggestions toward developing and improving products and/or services of the company. It starts the whole activity series and end up with the creation of a product or service. It may involve defining a new need or determining how to satisfy such a need. In a traditional manner, firms were the only one that started such a process. The company can decide to produce a new refrigirator, to manufacture bisquits and introduce it to the potential customers (Arevalo, 2001). However, today customer participation is considered valuable in this process, because with the customer complaints and suggestions companies can

solve the current service problems, expand current services or create completely new services. Also the value of customer suggestions are apperant from anecdotal evidences. Companies report that they achieved considerable success by introducing new product additions and an entire new product line based upon customers suggestions and comments (Betterncourt, 1997). As the customers have considerable experience with the services and products, they are an expert on the customer perspective and an inexpensive and valuable source of information for companies.

2.1.4.2 Actual Participation in the Product Development Phase

Bettencourt's (1997) another cooperative role of the customer is being a human resource. This role fits the purpose of this stage of the co-production process. At this phase customers involve in producing and/or designing new services and products. They participate in enhancing the quality of the services by interacting with the employees of the company or by engaging their own part of activity as co-producers (Bettencourt, 1997). At this stage customers need to understand their level of liability and their responsibilities. It is really important for the customers to have a well-defined role during the service encounter about what they should do and how they should act. This clearly defined role also increase the trust between customer and the company (Bendapudi and Leone, 2003). In the development phase customers can have two different roles, basically producer and designer. First the features and characteristics of the products are planed and then product is going to be produced. So production activitiy follows the design. In many situations, only design activity is performed by customers and production partners are used as consultants which provide information. For example a family and an architect might plan a home for the family together. Beyond these basic ones customers have other different roles as

human resources. In the example of self service approach of IKEA as shown in Figure 2.3, customers are producers of their own value, they are responsible for collection of furniture from warehouse of the retailer, deliver them to their home and then self-assemble the various pieces of the product into a complete bed or sofa (Arevalo, 2011). Figure 2.3 presents these value creation activities.

Figure 2.3. IKEA's Self Service Approach (Upper left image: The IKEA warehouse, 2012; bottom left image: Yeah, we brought home a *bed* from IKEA by bike, 2012; right image: self-assembly, 2012)

In the example of Tie-ups customers are the designer of their own belt. You can customize your belt by choosing the belt, buckle and also tongue color and size (Figure 2.4). (Tie-ups are belts that renovate traditional belts through the utulization of innovative materials, not absolute terms but in relation with their application on this specific product).

Figure 2.4 Tie-ups Customizable Belts (Tie-ups,2012)

2.1.4.3 Co-production at the Post-production Phase

Customers have different roles as a partial employee, at this stage they can act as promoters of the company. Customers recomend the firm and its products to other consumers and spread a favourable word of mouth, also it contributes to promoting firms activities to the public. All of these indicate that this role is linked to the concept of customer loyality (Bettencourt, 1997). Customer participation at this stage is important for the success and competitiveness of the firm. Another advantage is that companies can gain a cost reduction in terms of saving some of promotion activities expenditure. Morever customers suggestions and word of mouth contribute to the expansion of positive image of the company and increase service quality expectations and evaluations (Parasuraman et al., 1985, in Bettencourt, 1997).

2.2 The Concept of Do It Yourself (DIY)

2.2.1 Essence of DIY Activities

Although home maintenance and amateur woodworking activities originate at the beginning of Post Victorian era (1900s to 1910s) in G.B as a money saving activity, to keep up with the changing styles in architecture, furniture and decorative objects, it gains popularity during 1930's. At that time government loan guaranty programs encouraged middle class Americans to show interest in hand craft projects and home workshops (Wolf, 2008). Subsequently magazines began to provide information about home redecorating, renewing and fixing to a growing number of interested audience (Figure 2.6). Also unemployment caused by Great Depression (a severe worldwide economic depression preceding World War II. In most countries it started in 1930 and lasted until the late 1930s or middle 1940s) contributed to the growing interest in handicrafts as hobbies. Hobbyists began to create personal spaces in their homes to make model trains and airplanes, furniture and other wooden items. With increasing skill sets and confidence gained from woodworking projects, home craftsman began to apply their newly gained skills around the house. Also marketing efforts shifted from the traditional focus on professionals to communication with consumers (Goldstein, 1998). Changing marketing efforts and the evolution of the retail environment promoted the DIY trend in America. Amateur friendly tools packed with detailed descriptions enabled the amateur to tackle tasks that before only specialists were suited for. Also the media have prompted this trendy interest in do-it-yourself. Books, magazines, leaflets, home improvement manuals and also popular shows in public TV began addressing the growing desire of the individual to perform

planning, design, maintenance and repair tasks themselves and that were filling the

high demand for do it yourself knowledge (Wolf, 2008).

Figure 2.5 Examples of Do It Yourself Magazines in 1930s-1950s (upper left image:

Good Housekeeping magazine cover, March 1930, 2012; upper right image: New

Winter Project: How to Build Your Own Canoe, 2012; bottom left image: Practical

Householder magazine, October 1956., 2012; bottom right image: Make your own

Automatic Tea Maker, 2012)

New product ranges and methods of retailing have supported to position DIY as something that an average person might do. Innovations in materials such as fiberboard (MDF), plastic and fixing technology (especially glues) extended the range of tasks the average handyman is willing and able to take on. For example, a few decades ago painting a door was a complicated task, which require experience, because for the best result it should be applied to each section in the right sequence and time without drips. However, in 21st century with the new technologies (fast-drying, non-drip, and water-based paints) even amateur beginners can make an acceptable job (Shove et al, 2007). It shows that key innovations in DIY products which make traditional tasks easier and faster, have brought new projects within reach of the amateur DIY enthusiast. As a result they have contributed to re-distribution of the skills demanded to accomplish a task, typically from the user to the product (Watson and Shove, 2005).

Eventually in 21st century modern technology and production methods have enabled consumers to be more involved in the production process. Increasingly, companies such as Bauhaus, Koçtaş, and IKEA encourage consumers to take part in the production process. In addition, many websites such as CafePress.com, Etsy.com, and TasteBook.com provide tools for consumers who want to make and purchase creative self-made products. The range of products that consumers may play a part in creating is extensive.

2.2.1.1 Defining DIY Activity

When we look at academic literatures, there are not any restrictions about what specifically counts as Do It Yourself (DIY) and also there is not any exact definition

of DIY within the design studies literature. Although Oxford Advanced Learner's Dictionary defines DIY as the activity of accomplishing home maintenance or modification tasks yourself, instead of paying somebody to do it, today the term DIY includes a broad range of activities in literature and daily life practices (2012). Wolf (2008) points out the same when he defines DIY practices, which encompass wide range of activities, including home remodeling, auto repair, landscaping, gardening and a host of special consumption directed projects such as handcrafting and furnishing. It repeatedly appears in relation to fields such as home repair and maintenance, craft production and self production. In different field of activities the term is used in common as people provides services and products for themselves without any paid services of a professional.

DIY can simultaneously appear as leisure and work, and also as consumption and production, which makes it a complex phenomenon. As the increasing market share indicates, engaging in DIY certainly involves consumption. At the same time, because of transformation of the home environment materially and aim to enhance property value, it can also seem as production. Lots of people, at least some of the time, regard DIY as a form of leisure, while it is a work for others (Watson and Shove, 2005). Repairs or additions to the home or garden, like installation of a new bathroom or kitchen, renovation of central heating, putting up shelves, repair of a fence, building a barbecue etc. are rank as DIY by the market research company, Mintel (2003) (in Watson and Shove, 2008). Also Wolf and McQuitty (2011) define DIY as activities in which raw and semi-raw materials and elements are used to produce, transform or reconstruct material properties of the individuals. Another definition consider DIY as a field of consumption which inherently requires the

production of consumer to realize a product with a creative combination of skill, knowledge and labor and transformation of raw materials (Campbell, 2005).

In academic literature except the term DIY, self made projects are entitled as prosumption, co-creation, co-production, self production and craft consumption etc. The concept of prosumtion was presented by Toffler's (1980) in his book The Third Wave, as an acronym for the combined activities of production and consumption. It is the combination of production and consumption activities by the same person, that is to say individuals produce product for their own consumption. Therefore it is not a single act (e.g., purchase, consumption), it is a process which consists of physical activities, mental effort and socio-psychological experiences. People take part in this process by investing their input of money, time, effort and skills. Prosumption requires physical manufacturing activities like procuring, assorting, moving, combining and changing inputs, mental effort like planning, evaluating, monitoring and regulating in order to accomplish the intended project. As distinct from physical activities and mental effort, socio-psychological experiences attach to various aspects of the process and the outputs as well. Therefore it is a value creation activity that results in production of products which eventually consume with the same person (Xie, Bagozzi and Troye 2008).

Campbell (2005) defines craft consumption as activities in which individuals both design and make the products in order to consume by themselves. Craft consumer generally use different number of mass-produced products as raw materials for the creation of a new products for their self-consumption. As it is the application of skills, knowledge and passion of the individual, it ends up with creativity and self-expression (Campbell, 2005)

In Co-production customers actively participate in the organization's creation process of the core product to provide a better solution to the customer. Customers become co-producers when they perform activities previously done by the company, such as assembly of parts (Wolf and McQuitty, 2011)

Another term that we meet in academic literature is self production. In self-production customers actively take part in the creation of end products, such as preparing a meal or assembling a piece of furniture. This participation can range from producing goods and services from scratch with little or no use of commercial products to coproducing goods and services using tools such as input products and devices (Troye and Supphellen, 2012).

There is an overlap among co-creation, co-production, craft consumption, prosumption and DIY activities in terms of customer involvement and the effort required to produce a good or service that is what makes the produced outcomes emotionally different from mass-produced fabricated products and worth to investigate emotionally.

As DIY is not a single act, DIY activities can be investigated in three phases. Phase I motivations of DIY, phase II DIY experience and phase III outcomes of DIY.

2.2.1.2 Motivations of DIY (Phase I)

Motivations of people for undertaking DIY activities are certainly diverse. Some of them see it as a form of work, while others as leisure or an arena for self-expression and creativity, some of them being motivated by economic considerations, others by notions of quality, care, enjoyment and control. There are multiple motivations that

may give rise to DIY practices however it is obvious that all of them derive from our concerns. They are all about what is going to be achieved, all about the question of whether the activity will improve the market value of the property, meet media inspired aspirations of living objects or express individuality.

Individuals develop different motivation for DIY and it seems probable that certain activities are undertaken as necessities like the concerns of living conditions whereas others are for experiential enjoyment which might occur for example when doing a project from start to finish. Table 2.6 which is analyzed and combined together from Whatson and Shove, 2008 and Wolf and Mcquitty, 2011, shows motivations of DIY activities and related terms. The motivations of DIY activities arise from two different aspects, which are marketplace evaluations and the desire to enhance aspects of identity. Certain conditions make these motivations more likely to emerge like do it yourselfers' spare time or their previous DIY experience (Wolf and McQuitty, 2011). If we think from an extended view personal networks of family, friends and neighbors are also very important for individual to undertake DIY experiences, because it is really important to know there is a friend who can help or a knowledgeable parent who can give advice when things get stuck. Also what the neighbors or friends have done is encouraging and inspiring. If DIY really meant doing things completely alone, it would not be as widespread as it is today (Watson and Shove, 2008).

Motivations of DIY (Phase I)		
Market Place Evaluation	**Enhancing Aspects of Identity**	**Leisure**
- Relative economic benefits - Lack of product quality - Lack of product availability - Need for customization	- Achieving a sense of empowerment - Constructing an identity as a craftsman - Being a part of a community Need for uniqueness	- Enjoyment

Spare time / Previous DIY experience / Personal networks

Figure 2.6 Motivations of DIY Activities

Motivations arise from market place evaluations are basically relative economic benefits, lack of product quality, lack of product availability and need for customization. Need for saving is a strong motivator for accomplishing DIY projects. Many DIYers (DIY practitioners) try to save money by using their ability, skills and labor, because of their financial concerns (Wolf and McQuitty, 2011). Again another financial concern is that people treat their homes as a business investment and try to maximize the market value of their property through improvements (Watson and Shove, 2005).

Another motivation to undertake DIY activities is the perception that professional services may not achieve sufficient quality, because most of the time people believe in that no one can do a better job than themselves. This possible theory directs consumers to make goods and perform the services by themselves. (Brown et al. 2005, Lush et al. 1992, in Wolf and McQuitty, 2011).

The absence of product availability is another market place evaluation which has a similar effect with the perception of insufficient quality. Again the need for customization is a motivation closely related to lack of product availability. Consumers satisfy their specific product needs through DIY behaviors, as DIY market makes it possible for consumers to create their own customized products, with it's endless product applications and combinations of raw and semi raw materials (Wolf and McQuitty, 2011).

Other important motivation category of DIY is about identity enhancement and maintenance. As a result of their study Wolf and McQuitty (2011) defined four source of identity enhancement which are achieving a sense of empowerment, constructing an identity as a craftsman, being a part of a community and need for uniqueness. These range of motivations show that DIY is more than economic necessity.

Their previous DIY projects make female individuals feel empowered and motivated to continue further DIY projects. On the other hand male DIYers feel fulfillment and sees their projects as a reflection of their ability as craftsman (Wolf and McQuitty, 2011).

Another reason why people engage in DIY activities is the connectivity side of DIY. As DIY is like a leisure activity, it connects people with each other, it is a way to be with family or friends (Wolf and McQuitty, 2011). It is a good way for sharing ideas and projects. The recent popularity in DIY activity and the increasing number of consumers engaging in creative experiences indicates changing socio-cultural trends among consumers (Chen and Chandler, 2010).

The desire of uniqueness is another identity enhancement aspiration. Some DIYers make their own products in order to create unique items and styles as they want to differentiate themselves from others (Wolf and McQuitty, 2011). Mintel (2002) state that much of today's DIY is not out of necessity but out of a desire to keep up with trends. DIY projects basically emerge from the negotiation of the changing patterns and routines of everyday life into the physical structures and products (Watson and Shove, 2005). With DIY production consumers are creating a look for themselves which reflects their personality (Williams, 2004).

2.2.1.3 DIY Experience (Phase II)

Existing academic literature focuses mostly on the final material effects, namely the outcome of DIY projects rather than on the productive process of actually doing DIY. DIY experience is not a single act, it is a continuous process, it starts from planning and design, then continue with the use of input, assembly, building or constructing and realization and also consumption of the outcome. It is the producing experience which makes it different and gives extra value than other purchased products. Figure 2.7 which is analyzed and combined together from Xie et al., 2008 and Watson and Shove, 2005, shows value creation process of DIY experience. According to Xie et al. (2008) being involved in the creation of a product may generate additional value for consumers and add to the quality of their lives. There are pleasures, challenges, satisfaction and frustrations of carrying out DIY projects. There is a pleasure of interaction with tools and materials, enjoyment gained from undertaking DIY. Because if the work is engaging, challenging and stimulating, it is fun and fulfilling, makes people feel necessary and fills a big gap in our everyday existential void (Watson and Shove, 2005).

```
                        Using input
Planning                 Building                      Realization
Designing                Assembling                    Consumption
                        Constructing

                     Exploratory Process

┌──────────────────────────────────────────────────────┐
│                    There exists:                       │
│   Pleasures, Challenges, Satisfaction and Frustrations │
└──────────────────────────────────────────────────────┘

┌──────────────────────────────────────────────────────┐
│                    Because it is:                      │
│   Engaging, Challenging, Stimulating, Fun and Fulfilling│
└──────────────────────────────────────────────────────┘
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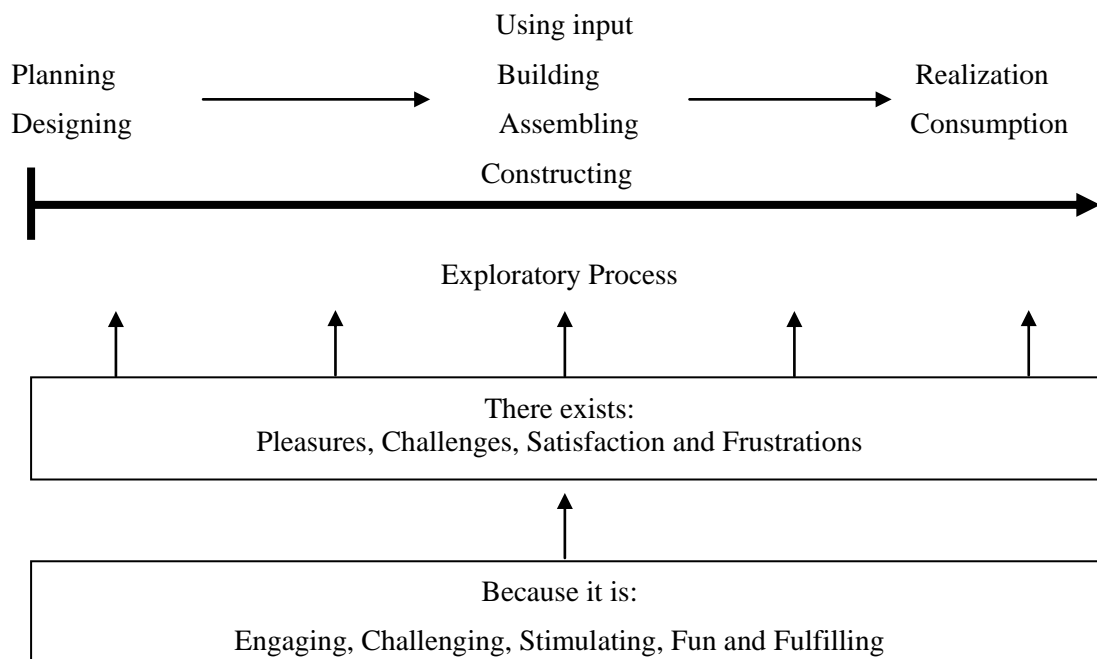
Figure 2.7 Value Creation Process of DIY Experience

There is an example of Shapiro (2004) (in Norton et al., 2011) about instant cake mixes. They were launched in the 1950s as a part of a trend to make the life of housewives easier by reducing their labor. Cooking was too easy with this mixes, however housewives were resistant to this new product, because their labor and skill seems like undervalued. Accordingly manufacturers added an egg to the recipe, and had subsequent adoption with the added labor.

Investigating time rather than money enhances the emotional significance of an event (Mogilner and Aaker 2009). Rather than simply buying a finished product, making a product yourself, comprises experiential and material aspects of products and needs an investment of time. Therefore, if a consumer participates in the production process of a product, the happiness and emotional satisfaction which is derived from

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consumption behavior is over and above the value placed on the physical product itself (Atakan et al. 2010).

According to data's of market research company, Mintel, as mentioned Watson and Shove (2005) over 25 percent of UK adults claim to enjoy DIY, 8 percent identify DIY as hobby. The report also respond to the question why people prefer to spend time on DIY projects rather than more obvious leisure activities and it is claimed that even the people who able to afford to employ someone else to do the work see DIY as a leisure activity. These figures show that the thing what makes DIY rewarding is the process itself. Watson and Shove (2005) describe DIY as an exploratory process, because there can be a few DIYers who have finished a project through only the processes envisaged, using only the tools and materials planned, or maybe even achieving quite the final effect excepted from the start. Of course, some jobs can go exactly according to plan, but DIY is almost inherently exploratory, stubborn and surprising because of the complexity of coordination, between tools, materials, fixings.

DIY is an assemble activity, even some of the most basic and widespread DIY tasks, such as erecting a self, requires bringing together essential range of tools and materials in proper relation to each other (Campbell, 2005; Watson and Shove, 2005). There is an experiential enjoyment in engaging DIY activities and it is not wear off because DIY skills are continually extended (Wolf, 2008). The doing of DIY is the work and frustration of mixing up body limitations with a diverse range of tools in order to transform a collection of materials to a new product. It is a coordination work which consists of tools, materials, competence, confidence and the body (Watson and Shove, 2005).

As Wolf (2008) states the individual's activity extends beyond a creative consumption through interpretive participation into the complex design and hands-on practices of do-it-yourself. By physically making things, do-it yourselfers go beyond construction of meaning of a commodity in a more multifaceted manner. They actually become the designer and builder of an object. They design the project's functional design specifications. They choose among available materials and tools. They engineer the work process of completing the project. Also they inspect and evaluate, when deciding the product has achieved the imagined value.

2.2.1.4 Outcomes of DIY (Phase III)

Unlike other ordinary (ready to use) products, DIY product experiences have different outcomes. Wolf and McQuitty (2011) assert that, their participants explained strong emotions about completed DIY projects. Also added that the majority did not put emphasis on the utility of the finished product, but rather the excitement and passion they derived from completing the project. As a result consumers who engage in DIY activities feel a sense of accomplishment, control and enjoyment and also these outcomes extend typical consumer values.

Outcomes of DIY (Phase III)
- Sense of accomplishment - Feeling control over own life - Realizing self potential and self capabilities - Feeling self-esteem - Feeling enjoyment - Formation of memory links between the self and self produced outcome - Self integration, valuation of self-made product - Formation of social bonds and experiences, empowering social networks

Table 2.2 Outcomes of DIY Experience

The study of Wolf and McQuitty (2011) illustrates all of these outcomes. According to their statements, at the end of the activity when they accomplish their projects, every participant feels a sense of accomplishment, as they realize their potential and capabilities for future DIY projects. Also as they face new projects and unexpected difficulties with success, it makes them feel that they have control over their living spaces and lives. In spite of any failure or unexpected difficulties experienced during the project all participants remark their DIY projects as enjoyable (Wolf and McQuitty, 2011).

According to Troye and Supphallen (2012), when a person involve in a self-productive activity, which require physical interaction with products or product components and psychological involvement, such as preparing a meal or assembling a chair using a toolkit, a series of multisensory interactions happen and lead to the formation of multiple memory links between the self and self produced outcome and as a result self esteem. As most people have positive evaluations of themselves, the link between self and the object should lead to more positive evaluation of the object. When consumers are exposed to something made by them, they may activate associations with the self and form emotional reaction to the outcome. Self production has a positive effect on self integration. The degree of relation with the self produced outcome and self is based on the exerted effort and creativity during the production. Self-produced outcome becomes linked to the self and stronger self-integration means larger networks of links between the self-concept and the outcome. Therefore self production leads to higher evaluations of the self produced outcome (Troye and Supphallen, 2012). Also Norton et al (2011) claim that self production

increases thoughts about the positive attributes of the product and also emotional attachment to that product.

Moreover self assembly of products makes people feel competent. According to Watson and Shove (2005) it is clear that DIY practitioners are frequently developing competence and confidence through taking on projects with active synthesis of existing experience and knowledge, also practical engagement with their tools and the materials.

DIY activity involves consumers' intellectual and bodily engagement in planning, designing and producing for self consumption. Consumer becomes the designer, producer and evaluator of project during production and after completion. As a result DIY behavior has greater meaning than the functional value of the project (Wolf and McQuitty, 2011).

Many people have some kind of handmade creation that they made some time in their lives; they would never throw it away, even though it looks terrible. Across four new studies which draw on four experiments using different types of products, which are origami art, IKEA boxes and Lego sets, Norton et al (2011) observed that across all, the positive value of adding labor was both consistent and significant. They show that increasing the labor required for a product actually leads to greater appreciation for it, eventually labor increase the valuation of self-made products and they call it as the IKEA effect. People really overvalue their handmade creations than objectively similar product which is pre-assembled. They saw their amateur projects as similar in value to experts', and expected others to share their opinions. The study also shows that labor alone can lead greater liking about the self produced outcome. For example

even though Norton describe the IKEA box as the most boring product they could find in the world, and there was no opportunity for customization with the DIY boxes, builders of the boxes were willing to pay 63 percent more for their creations, compared to others given the chance to buy the same box pre-assembled.

Another study indicates that people evaluate objects more positively when they are directly related with goal pursuit than they are not. Activation of goal leads to more implicit positivity toward goal-related stimuli (Troye and Supphallen, 2012). This argument also makes the IKEA effect theory more perceptible as if someone does something by her/himself, it is not surprising that he or she has a defined goal and the new self-made product will satisfy the goal pursuit. According to Troye and Supphallen (2012) self-production can be goal relevant in different ways. For example, if the consumer is interested in self-production domain, the goal might be providing enjoyment or maintaining the self-concept, or if the consumer is not interested, self-production can be relevant from the perspective of convenience or economic savings.

The outcomes of DIY are not limited to the creation of meaning-laden arts and crafts, also include the transformation of mundane everyday objects into representations of social bonds and experiences. By this way, consumers engage in DIY experiences to reduce social isolation and empower their social networks. Particularly consumers attribute meanings that are gathered from past times, faraway places. Consumers essentially create objects that memorialize and legitimize social ideals and happy times. For example, when these artifacts are displayed in their homes or given as gifts, the importance ascribed to their social bonds and social networks is affirmed by others. Social bonds that have gone unpleasant are re-created through snapshots of

happy times and happy places made permanent because of DIY artifacts (Chen and Chandler, 2010).

DIY MOTIVATION

Market Place Evaluation

- Relative economic benefits

- Lack of product quality

- Lack of product availability

- Need for customization

Identity Enhancement

- Achieving a sense of empowerment

- Constructing an identity as a craftsman

- Being a part of a community

- Need for uniqueness

Social and Spare Time

- Good way of sharing ideas

- A way to be with family or friend

- Achieving enjoyment, having a good time

CUSTOMER DESIRE to DIY promotion and products

INFORMATION ACCESS

SUPPORTING FACTORS

- Spare time /

- Previous DIY experience

- Personal networks

DIY PRACTICE

- Planning and designing

- Building, assembling and constructing

- Maintenance and repair

- Home improvement, gardening

DIY EXPERIENCE

- Design experience

- Exploratory process

- Creative and social experience

DIYERS ACHIEVEMENT AND PERCEIVED SUCCESS

DIY VALUE

- Sense of accomplishment

- Control in life

- More self-esteem

- Enjoyment in life

- Pleasant social experiences and networks

Figure 2.8 Connections of DIY Practice and DIY Value (Modified and Extended from Wolf, 2008)

2.2.2 Categories of DIY Activities

As DIY involve broad range of activities, we can categorize the concept in three parts. In do it yourself activity, self involvement is the basis of emotional differences so it is reasonable to categorize them within the participation framework. Table 2.3 shows three categories of DIY activities. First group projects are carried out in the maintenance and improvement of homes and automotive possessions. Second category is about handmade and art and craft projects where you create a new product and in the last one consumers use prefabricated branded inputs to engage actively in productive activities.

Categories of DIY Activities

Home maintenance and Improvement	Handmade and arts and crafts projects	Already designed ready to assembly products
- Home remodeling - Flooring, tiling - Putting up shelves - Plumbing, painting - Building fences, Gardening - Electrical work . . .	- Framed art, baskets, potpourri - Jewellery making - Needlecrafts - Knitting - Soap and candle making . . .	- Readymade kits - Single pack of materials, fixings and instructions

Table 2.3 Categories of DIY Activities

Maintenance and improvement activities are the most common DIY tasks, as all people at least one of their lives engage in these kinds of activities. What makes these activities so popular is that, when people engage in the production of their own products, theoretically they save money relative to what they would pay for a home improvement professional. However at the same time these DIY projects can be described as a risky journey that consumers undertake by themselves without the help of paid home improvement and service professionals. As Wolf (2008) states DIY projects cover common tasks like home remodeling, interior design, flooring, tiling, putting up shelves, kitchen and bathroom installation, plumbing, painting, window treatment, electrical work, changing light fixtures, furniture making and refinishing, building fences, gardening, mechanical work, appliance repair, auto repair and maintenance etc. All these activities require efforts like driving screw or nails into the wall, cutting, sawing and plumbing etc. According to Wolf all these indicate that DIY home improvement projects are different from arts and crafting activities in terms of the type of the projects, tools and materials used, money spent on projects and amount of labor.

Creating a completely new and unique product like craftsman do is another type of doing yourself experience. Watson and Shove (2008) defines DIY is an important field of craft consumption in which consumers actively and creatively engaged in uniting and transforming a large collection of material goods. Craft consumption also requires skill, knowledge and judgment of the producer and accordingly some boundaries need to be drawn around what can be considered as craft consumption dependent upon the character of assemblage activity taking place (Watson and Shove, 2005). According to Wolf (2008) crafting activities include home decors like

framed art, baskets and potpourri and also jewellery making, needlecrafts, knitting, soap and candle making etc.

Another category is already designed flat pack products which include instruction sheets and manuals and also need self assembly. Watson and Shove (2005) state that although initial warehouse store assign priority to high stowage and selling cheap, now they are seeking more products to situate in relation to each other. There is growing number of readymade kits regarding the most basic level common projects. For example there is a single pack of materials, fixings and instructions about putting up a shelf. When compared with individual product pieces that require installation from all the beginning, kits make the production tasks easier for the consumers and offer more opportunity for creative solutions (Troye and Supphallen, 2012). IKEA is a good example which offers prefabricated branded inputs and makes consumers to engage actively in productive activities.

2.3 IKEA Phenomena

2.3.1 Brief History

IKEA is one of the largest retailers in the world serving among the home furniture product category. It was founded by Ingvar Kamprad in 1943 in Sweden and owned by the Kamprad family. IKEA has started with selling pens, wallets, jewellery and picture frames (Zentes et al., 2007). Founder's interest was to meet the customers' needs with the price as low as possible. After the firm has gained enough experience on this special focus, Kamprad add furniture to its product range in 1948.

Figure 2.9 First Introduced IKEA Furniture in 1948 (First Introduced IKEA

Furniture in 1948, 2012)

Three years later they published and distributed the first IKEA catalogue as free, which is a trademark and an important marketing channel of the company.

Figure 2.10 The first IKEA Catalogue Published in 1951 and IKEA 2012 Catalogue

(left image: The first IKEA catalogue, 2012; right image: IKEA catalogue 2012,

2012)

In 1955 the first furniture showroom was opened in Almhult (Sweden), in order to dissipate skepticism and allow customers examine products before ordering. In 1955 IKEA started to design its own furniture because of the problems with suppliers and

one year later they invented knocked down furniture sold in flat pack, which is one of the characteristics of the IKEA (Zentes et al., 2007). First IKEA store was opened in 1958 in Almhult and since then company developed steadily. After a few years they opened the first store outside Sweden, in Oslo in 1963. The largest IKEA store opened in Stockholm in 1965, thousands of people queue for the opening, and also it introduced the Cook Shop with quality cooking items at a low price. This store's success leads to an important part of the IKEA concept to be born. The warehouse was opened and allowed customers serve themselves. In 1973, first store outside of Scandinavia was opened in Switzerland. Afterwards, IKEA concentrated on innovative design ideas and strengthened the IKEA concept. "IKEA's growth was quite spectacular during the 1970s and 1980s, thanks to a strategy based on offering products with a certain quality level at a relatively low cost" (Canals, 2000).

IKEA's philosophy was different from traditional furniture approaches. IKEA designers are encouraged to design quality products and support low price concept with innovative ideas. For example TAJT multi functional seating unit is one of the good examples that show how IKEA does things differently (Figure 2.3). The seating unit is made from denim at a low price, because it is a low cost and hard-wearing material from another industry. Another example is a plastic chair called SKOPA. It is developed by a supplier usually produces plastic buckets in 1974 (IKEA, 2012).

Figure 2.11 Tajt Multifunctional Seating Unit and Skopa Chair (left image: Denim used for furniture, 2012; right image: SKOPA chair raises eyebrows, 2012)

1984 IKEA wins the Excellent Swedish Design award with stockholm range of furnishings, as this range is a high quality classic furniture serie at a lower price than the expected. During these success steps of IKEA from the foundation to 1986, the main leader was the founder of the company. In 1986 Ingvar Kamprad retires from group management and become an advisor on the issues concerning the product range and still highly involved in decisions made within IKEA. In 1997 IKEA launches the Children's IKEA, which includes products developed and designed specifically for children. Also the same year the IKEA website is launched and stores start to be supported by online facilities. Today IKEA has a total of 287 stores in 26 countries on four continents; Europe, Asia, North America and Australia, as of August 2011 (IKEA, 2012)

2.3.2 IKEA Philosophy and Concept

IKEA has a well-defined concept which makes the company the worldst largest furniture retailer. All the processes, including the way that IKEA products are designed,manufactured, distributed, displayed, sold and assembled, are defined by the IKEA concept. The business idea of ikea supports the vision to create better everyday life for the many 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" (IKEA, 2012). Instead of concentrating on expensive home furnishing that only a few people can afford, the IKEA concept provide low-priced and quality products so that more people can buy them and live a better life at their home. This idea is in the center of every activity of IKEA, from product development and purchases to how to sell products in IKEA stores. Anyone can make a good quality product for a high price, but the difficult one is to make good products at low prices (IKEA, 2012), it requires to develop cost effective and innovative ideas and methods. By this way IKEA shows how they approach things a little differently. During early years of the company founder Ingvar Kamprad developed the principles and the philosophy that brougt the company today. His idea was offering wide variety of functional and stylish home furnishing products by avoiding expensive ways of manufacturing but keeping the high quality of goods and innovative design (IKEA, 2012). Also he has considered introducing Swedish culture and style to the world, since even the name IKEA is composed of the initial letters referring to the founder's name, his parents' farm and his hometown in the Southern Swedish region of Småland: Ingvar Kamprad, Elmtaryd and Agunnaryd. Since its foundation in 1943, the IKEA concept has been improved and introduced to more

people around the world. It has been so efficient and internationally reasonable that has enabled facing "no direct competitors with an equivalent global scope" (Zentes et al., 2007).

The fundamental principles of the company are cost awareness, customer convenience and quality, in order to achieve the goal of the IKEA concept. The principle of quality is seen in three periods of IKEA products life cycle, which are creation (design), range and use. First, all IKEA products are designed by IKEA designers and just for IKEA. This makes it possible to keep quality high and under control instead of depending on other designers and manufacturers. Second each products for sale in the store, from furniture to kitchen apliances, is a part of IKEA range, which is a coherent whole. Also products in the range are designed for different specific segments like young or old, high or low income, modern or classic, etc. Third strength and workability as well as surface and resistance are tested in order to introduce good quality of the usage period (Prime, 1999). All IKEA furniture are tested and have Möbelfakta seal, which is a quality label based on Swedish standards system in order to analyzing materials, construction and durability of the products. The principle of cost awareness is connected to the quality principle and involves several methods for money saving, such as developing own products, concentrating on flat packages and buying quantity of materials. Also maximizing customer involvement in stores and delivery and assembly activities. Self assembled furnitures are a good solution for customer convenience as well, that makes IKEA products easier to buy, transport and use.

The key elements of the IKEA concept are in many cases different from traditional basis of the furniture businesses in fact it is opposite of conventional furniture

retailing approach (Zentes et al., 2007). First of all IKEA has large stores on the outer areas of the cities, whereas traditional home furniture stores are located as boutiques in city centres. Rather than charging more shop assistances, IKEA lead customers to serve themselves. Unlike from traditional furniture companies, IKEA has sourced on a global scale from the very beginning. Also IKEA shifted traditional focus which is middle to upper middle aged customers to younger people. Instead of delivering assembled furnitures for customers, with its flact pack approach IKEA encourages the customers both transport and assemble furnitures themselves. Even though some features of the products, stores and services are customised according to culture and lifestyles of different countries, they are genarally standardised all around the world. In order to avoid an undesired change in the IKEA concept and image, each IKEA store has the same products worldwide not the whole but the core products among the range. These core products consist of more than 4000 basic articles and called SBAS. In addition there are more than 8000 BAS articles which supports and improve the core product range (Gürel, 2008 in Oksay, 2008). On the other hand IKEA considers national economic and cultural conditions and adapts the layout of the store, presentation of the goods, home solutions offered and prices (Miller,2004).

IKEA product range is wide in function, style and price segment. You can find everything you need for furnishing your home from furniture and kitchens to plants and toys. Also IKEA offers different styles together, romantic, minimalist, modern and so on. At the same time, there are products in several different price segments in order to attract all the customers in the market place. As the range is wide in function, style and price at the same time, there is something for everyone no matter

which style they prefer or which income level they are (IKEA,2012). Innovative and modular design is the core principle of IKEA furniture and accessories, as it allows customers to enjoy the variety and create their own combinations. Besides this IKEA product range offers practical solutions for people who have limited budget and limited space in their houses or offices and for fundamental activities like eating, sleeping, socialising, studying and storing items. All of these reflects the IKEA concept because they are simple, stylish and functional and also affordable for many people. At IKEA they start with a functional need and the price tag and then develop the product to suit that price. With the help of their knowledge on low-cost manufacturing processes their innovative ideas end up with functional, stylish and low priced products. Additionally, IKEA's large volume purchases and flatpackages reduce the costs and enable the low price offer of its concept. Additionally, all IKEA products have single world names rather than a code as IKEA wants its products to be part of the family. Although there are exceptions, most products name are Swedish in origin and based on a special naming system developed by IKEA (IKEA, 2012).

As a part of the IKEA concept, IKEA stores has a well developed and organized structure. They are quite large in order to introduce a wide range of products and designed for displaying all the furnitures and accessories in the range and also leading the customers to experience self shopping. Also its realistic room settings and homes presented in the store give innovative and inspiring solutions to the customers for their daily life. IKEA allows customers to explore all the products in the store by sitting or laying down on sofas and beds, opening and closing drawers, mixing and matching accessories and comparing styles and prices. Also many

necessary tools like pencils, notepads, tape measures, store guides, IKEA catalogues, shopping bags and trolleys are provided in order to improve the shopping experience of the customers and encourage them for shopping on their own. Each IKEA store has two floors which are 'showroom' and 'market hall'. In the showroom all furnitures are displayed both individually and in a combination of room settings, on the other hand market hall displays various home accessories other than furniture. They are often designed one-way layout to encourage the customer to see the entire store, at the same time lots of shortcuts to other parts of the showroom are available (Kling and Goteman 2003). In order to help customers to find the product they look for, both floor has some specific areas like living room, kitchen, bathroom, lighting and so on. This also makes it easy to compare the specific group of products in an efficient way. Furthermore, IKEA offers some other facilities with its restaurant, playground and seperated room for babycare etc. in order to help the parents to shop at ease.

Finally, other important components of the IKEA concept are catalogue and the website, as they are supporting design and inspiration ideas. Most importantly, IKEA catalogue is not an index of the IKEA range, it is an inspiring guide offering practical and innovative solutions for home decoration. Also it is distributed free and has prices valid for a one year period.

2.3.3 Co-production and DIY in IKEA

As IKEA's vision is to provide a better everyday life for the many people, through offering a wide range of well-designed, functional home furnishing products (internet IKEA, 2012), low prices form the cornerstone of the IKEA business idea. IKEA

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constantly tries to do everything a little better, a littler simpler, more efficiently and always cost-effectively. Performing this vision requires a different approach, finding simple solutions and saving on every method and process, but not budging from on ideas and quality. All IKEA units play an important part in creating low prices and also IKEA carry out partnerships with the customer in order to reduce its costs. First IKEA does its parts, find smart ways to make furniture with existing production processes, then buy the most suitable raw materials on a global scale which makes IKEA able to get the best deals (IKEA, 2012). Then IKEA waits from customers to start to do their part, take responsibility for the collection of unassembled pieces of furniture from the self-serve warehouse of the retailer, as most items are flat-packed, customers can deliver the packages to their own homes easily and afterwards self-assemble the various components into a complete table or bed. As a result IKEA and customers save money together for a better everyday life.

In contrast most furniture manufacturers, IKEA invites customers to co-produce the value of their own furniture by separating the assembly service from finished good, (Schultze & Bhappu, 2005). IKEA's partnership with the customer is an effective customer co-production example which results in better experience for the customer. By voluntarily purchasing unassembled furniture, transport it themselves and assemble it at home, customers are able to purchase quality products at low prices. As customers do a lot by themselves, at this stage information certainty is an important issue. In IKEA furniture are tangible and can be described in precise terms which imply that there are a finite number of ways in which the furniture can be assembled and also customers can see and touch the assembled furniture in IKEA store before they purchase it. These all keep information uncertainty in a low level.

Although information are certain and the process of furniture assembly is scripted and compiled into a set of actions, performance ambiguity is relatively high. As IKEA's service delivery process relies on customers to complete the production process, the outcome furniture can be misaligned or wobble. At this point IKEA has a generous return policy, which indicates that they acknowledge this high performance ambiguity an relies on trust to manage the incomplete contract with its customers (Etgar, 2007).

Chapter 3

3 Emotion and User Experience

3.1 Emotions in Psychology Literature

"No aspect of our mental life is more important to the quality and meaning of our existence than emotions they are what make life worth living or sometimes ending."(de Sousa 2010, in Cowie at al., 2011). Our perception of the world, assessing and dealing with situations and prioritizing actions are formed by means of emotions (Canamero, 2011). Emotional life is an enormous and complex domain. Common sense, movies, theatres, poems, historical accounts, psychological studies and philosophical discussions supply us with a great number of information about emotions (Ben-Ze'ev, 2000). As philosophers have written that emotion penetrate into human life (Stocker and Hegeman 1996), they are in the center of our lives and arouse interest to everyone (Cowie at al., 2011)

According to Rene Descartes, there is no need to look elsewhere for observations to establish the nature of emotions, since everyone feels emotion; the topic does not seem to be difficult to investigate. Despite their familiarity and being easy to express, emotions are highly deep and complex topic and hard to describe and analyze, since the nature, causes and consequences of the emotions are the least understood aspect of human experience (Ben-Ze'ev, 2000).
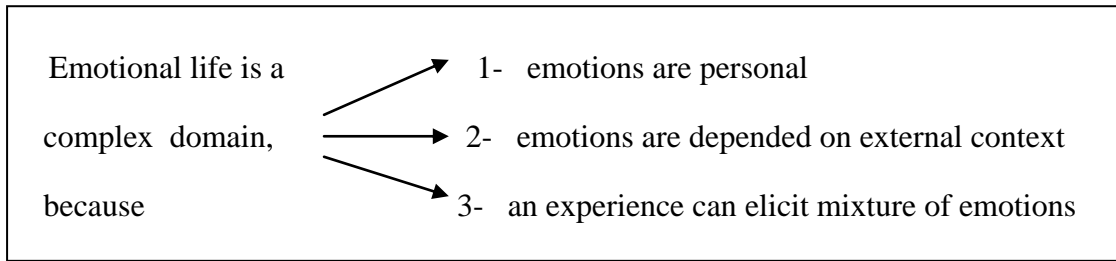
Figure 3.1 Issues that Make Studying Emotions Problematic

There are several issues regarding emotions that make studying them problematic. Firstly, two individuals can have completely different emotion about the same event, which means emotions are subjective and personal. Secondly the external context including the environment, time of the day, location weather and social situation among others can influence feelings directly or indirectly. Thirdly, an experience can elicit a mixture of emotions that are sometimes difficult to define. All these make to study emotions a demanding task (Envick & Wall-Müllen, 2008).

Before we investigate deeper characteristics and debatable issues about emotions we should start from the definitions of emotion.

3.1.1 Definitions of Emotions

The term emotion originates in the Latin and refers to e+movere that originally meant to transfer from one place to another. It has also a metaphorical usage that gave the term emotion its modern meaning. It is used to describe the state of both physical (e.g., the weather) and psychological agitation or perturbation. It is important to mention that it is a recent development to use the term emotion in a widespread manner for psychological states. From the ancient Greeks to the middle of the eighteenth century, for approximately two thousand years, it was common to

speak of emotions as "passions." The term passion is derived from the Latin, pati (to suffer), which in turn is related to the Greek pathos. These concepts comes from the idea that an individual (or physical object) is undergoing or suffering some change, as opposed to doing or initiating change. Thus we speak of being "gripped," "sized," and "torn" by emotion in ordinary discourse. More formally, emotions are something that happen to us (passions), not something we deliberately do (actions) (Averill, 1980)

The first definitions of the concept emotion (feeling, aesthetic, or passion) start in the domain of religion and philosophy. As Fridja (1988) states emotions have been defined as states of emotional feelings or as feeling states involving positive or negative affective valence.(Dorman, 2002)

As Kagan (2007) states, a great number of psychologists see the idea of human emotion as an abstract concept which consists of four different phenomena: 1. A change in brain activity to select impulses, 2. Detecting a conscious change with the help of sensory qualities in feeling, 3. Cognitive process that translates the feeling into words and, 4. To be prepare for a behavioral response. Scholars have different opinions about the significance of these four components and the strength of the connection among them.

According to Ben-Ze'ev (2000), emotions generally occur when we perceive positive or negative important changes which significantly disturb or improve a smooth personal situation relevant to our concerns. He talks about emotion as a burglar alarm which signals that something needs attention. Also Kant suggested that, "It is not things themselves that affect us, but things in their relation to us." "These concerns

are more or less stable preferences for certain states of the world; they are our personal motives in life "(Frijda, 1986).

This process of 'signaling the emotional relevancy of an event' is most commonly conceptualized as 'a process of appraisal' (Frijda, 1986). This appraisal theory views beliefs as major antecedents and determinants of emotions. According this theory, emotions are built on beliefs. Therefore the important point is, how we believe the world to be, how events are believed to have come about and also what implications events are believed to have (Frijda at al, 2000). As the environment changing Scherer (2005) emphasizes that emotions are evolving and developing continually in order to allow flexibility and adaptation.

Another view about the question of emotion is James opinion "*the bodily changes follow directly the* PERCEPTION *of the exciting fact, and that our feeling of the same changes as they occur* IS *the emotion.*" (James, 1884). He identified emotional feelings with awareness of bodily changes. (Cowie at all, 2011) The hypothesis here claims that we feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike, or tremble, because we are sorry, angry, or fearful (James, 1884).

3.1.2 Basic Emotions

The demand for proposing the term basic emotions comes from the need to provide an explanation of some routine observations about emotions. According to these observations some emotions seems to exist in all cultures and some higher animals. Some emotions have recognizable characteristic facial expressions and some of them

appear to serve survival needs of the individuals and species. Fundamental emotions are described by Izard (1977, in Ortony & Turner, 1990) as those "that have a specific, innately determined neural substrate, a characteristic facial expression and a distinct phenomenal quality".

Darwin (1872) with his book The Expression of Emotions in Man and Animal provide the first major contribution to the study of emotion. In this book he addressed questions such as what are the basic emotions, are they universal, how they can be defined, measured and compared. Eventually he explored various distinct emotions with the help of facial expressions. Facial expressions also were useful in identifying and measuring emotions. (Envick &Wall-Mullen, 2008).

Basic Emotions	
Hapiness	Anxiety
Interest	Shame
Surprise	Fear
Contempt	Anger
Disgust	Distress
Sadness	

Table 3.1 Darwin's Basic Emotions (1872, in Envick & Wall-Mullen, 2008)

The most common notion in the emotion literature is that some emotions have special status and they are usually called basic, primary or fundamental emotions. The main argument of several contemporary theories about emotion is the idea that there exists a small set of basic emotions. Although they admit that some emotions are basic, some of the questions like how many emotions are basic, which emotions are basic and why they are basic, are debatable. So every theorist believes in

different basic emotions towards their theory and explanations. In the light of these different theories Ortony & Turner (1990) draws a table that summarizes different basic emotions.

Reference	Basic Emotion
Arnold (1960)	Anger, aversion, courage, dejection, desire, despair, fear, hate, hope, love, sadness
Ekman, Friesen & Ellsworth (1982)	Anger, disgust, fear, joy, sadness, surprise
Frijda (1986)	Desire, happiness, interest, surprise, wonder, sorrow
Gray (1982)	Rage and terror, anxiety, joy
Izard (1971)	Anger, contempt, disgust, distress, fear, guilt, interest, joy, shame, surprise
James (1884)	Fear, grief, love, rage
McDougall (1926)	Anger, disgust, elation, fear, subjection, tender-emotion, wonder
Mowrer (1960)	Pain, pleasure
Oatley & Johnson-Laird (1987)	Anger, disgust, anxiety, happiness, sadness
Panksepp (1982)	Expectancy, fear, rage, panic
Plutchik (1980)	Acceptance, anger, anticipation, disgust, joy, fear, sadness, surprise
Tomkins (1984)	Anger, interest, contempt, disgust, distress, fear, joy, shame, surprise
Watson (1930)	Fear, love, rage
Weiner & Graham (1984)	Happiness, sadness

Table 3.2 Lists of "Basic" Emotions According to Various Sources in Literature

(Ortony & Turner, 1990).

When we focus on the agreement among researchers, most of them admit anger, happiness, sadness and fear as basic. However Ortony and Turner (1990) claim that the variations on the list may not be real, because the same emotion is often labeled differently by different researchers.

3.1.3 Components of Emotions

According to Ben-Ze'ev (2000) under the same eliciting circumstances, we posit that all basic and nonbasic emotions are comprise of similar psychological components, which are cognition, evaluation, motivation and feeling.

Cognitive state is at the heart of the emotion and cognitive events are typically about something. An emotion should have a cognitive content, accordingly an intentional object (Dennett, 1987; Searle, 1982; R. C. Solomon, 1976; in Russel, 2003). For example, if I am angry at you, afraid of you or in love with you, you are the intentional object, because emotion is directed at you (Russel, 2003). According to Robinson (2004) an emotion is a judgment or belief or fundamentally includes them. If I am scared of a bear, I believe or judge the bear as dangerous or threatening to me, it is not just a pain or twinge experience (Solomon, 1976, 1980; in Robinson, 2004).

Every emotion needs a specific evaluation. For example, hate indicates a negative evaluation of a person or object, pridefulness involves a positive self -evaluation and regret implies the evaluation of something wrong being done. When we have a fear of something, we evaluate it as dangerous or if we feel love and admiration to someone, there is a highly positive evaluation about that person. Emotions must be positive or negative because if they would not, you would be nonemotional, they cannot be neutral. This division expresses our primary attitude about the given situation and also indicates the importance of the evaluative component in emotions (Ben-Ze'ev, 2000). According to Ortony and Turner (1990) positive or negative evaluation is the distinctive element of an emotional feeling. Positive emotions

indicate a pleasing attitude, positive motivation and like-minded feeling, while negative ones are completely on the opposite. Positive emotions can be species of joy or love and negative emotions can be species of sorrow or hate. The former species indicate the role of emotions within our own selves, and the latter's emphasizing the importance of our relation to others (Ben-Ze'ev, 2000).

Because of the evaluation component, emotions are sensitive to personal and contextual circumstances. Ben-Ze'ev (2000) illustrates this sensitivity with a good example. Normally models pose for the artist without a shame. However if The artist's attitude shifts from a formal neutral relationship into a close, personal one, model suddenly feels ashamed of her nudity when she realizes that the artist no longer regards her as a model. In this example the change is in one's personal evaluation of the other's personal attitude, there is no apparent difference in objective circumstances.

The subjective perception of the object is also in the central of feeling component. Sometimes the term "emotion and "feeling" are used interchangeably, because all emotions have feelings (Damasio, 1994). Characteristic feelings are the obvious feature of the emotions and they are difficult to describe. Russell and Barret (1999) suggest that the characteristic feeling element of emotion has a particular relationship to neurophysiology and define it as core affect. Also suggest valence as primary characterize factor of core affect and activation as secondary. On the other hand according to James (1884), feeling component of emotion is formed by consciousness of somatic changes (in heart rate, breathing, etc.) related to the emotion. To some extent his ideas appear to be true, because injuries that affect the

perception of somatic changes modify the essence of emotional feelings, but do not eliminate them (Cowie at all., 2011).

There is another component that emotions may not be basically separate. They involve motivation but the extent of the connection is not clear. Emotional coloring is an element in motivation for example people do more someone they like or fear, and emotional events motivate or demotivate (Cowie at all, 2011).

3.1.4 Distinguishing Emotions from Related Affective Phenomena

The notion of affect includes a large variety of psychologial states such as emotions, moods, sentiments, passions and feelings which of them differ in duration, impact and elicited conditions (Desmet & Hekkert, 2002). To understand how people are affected by emotions, first it should be understood how they are distinguished from other affective states and how they are formed. Affective states can be identified by the conditions that bring about them. According to Frija (1986) there are two decisive factors, first if there is a relation between the person and the object or not which means the state is intentional or non-intentional and second if the state is acute or an enduring disposition.

	Intentional	Non-Intentional
Accute	Emotions	Moods
Dispositional	Sentiments	Emotional traits

Table 3.3 Affective States (Frija,1986)

An intentional state requires a relationship between the person and the stimulus, on the other hand a non-intentional state is not directed at a particular stimulus it is

about the whole world (Frijda, 1986). An accute state is limited in time on the contrary dispositional state is a personality characteristic. For instance "I am frighten by the dog" is an emotion and "I am afraid of dogs" is a sentiment (Desmet 2002). As it shown in the table emotions are an acute and intentional states. Although the term emotion and mood are usually used interchangeably, in fact they refer to particular and different experiential phenomena. First they differ in terms of duration (Ekman, 1994). As emotions are acute states, they exist only for a relatively short period of time like seconds or minutes (Desmet, 2003). However moods are likely to have a relatively long-term character. For example one can be happy or disstressed for several hours or several days. The other important difference is the intentionality. While emotions are intentional, moods are essentially non-intential. Moods are about the surroundings in general, they are not directed at a particular object, however emotions has a particular stimulus. While motions have usually a specific cause for example some event, moods have combined causes like the rainy wheather, lack of sleep, running out of coffe. That is to say the cause of a particular mood can not be specified (Ekman, 1994). Even sometimes people are not aware of being a certain mood. For example sometimes in the morning we can not realize that we are grumpy until someone tells us (Desmet,2003). Although being different there is an interaction in between moods and emotions. Certainly our emotions are affected by our moods. An irritable mood makes people become angry more easyly then usual (Ekman, 1994). Reversely our moods are influenced by emotions. A person who is repeatedly disappointed by a lover may probably end up in a bad mood.

While emotions typically related with the specific change in our situation, specific changes are less important in moods, sentiments and affective disorders. Emotions

have comparable concerns while moods, sentiments and affective disorders have existential and personal concerns. Emotions have four basic characteristics, which are instability, great intensity, partiality and brief duration. These characteristics are not all apparent in the same extent in moods, sentiments, affective traits and disorders. Moods and sentiments are more stable, less intense, more general and have longer duration than emotions. Affective disorders seem to be more stable in the short term but their stability is fragile. Also they are more intense, more general and longer in duration in comparison to emotions (Ben-Ze'ev, 2000).

3.1.5 Measuring Emotions

Measuring emotions is a challenging issue for emotion researchers. First of all there is not an agreement about how to define emotions, second emotions can not be observed directly, they have to be inferred from other people and also there is not any clear objective criterion when an emotion has occur (Kalat and Shiota,2007). For this reasons proposed methods for measuring emotions vary. It is possible to observe four attitudes, in relation to the definitions of emotion.

1. As emotions are conscious feeling of states, individuals can describe and determine their quantity. Thus psychologists use questionnaires when measuring emotions in scales. (Niendenthal et al., 2006)

2. Emotions are unconscious physiological reactions which are outcomes of feedback from peripheral nervous system. Therefore emotions can be measured by physiological changes in body, like heart rate, blood pressure, sweating and other

variables that change irregularly during emotional arousal (Niedenthal et al., 2006; Kalat and Shiota, 2007).

3. As emotions have unconscious reactions and some of them are reflected as facial and vocal expressions, researchers developed methods to measure such behavioral observations (Niedenthal et al., 2006; Kalat and Shiota, 2007).

4. Emotions are the combination of cognitive evaluation and classification process which makes them measurable by self reports evaluation, attribution and judgments (Niedenthal et al., 2006).

As these attitudes reveals, there are different methods that can be used to measure emotions. The first and the last perspectives are almost similar. Both states see emotions as conscious reactions and claim that they can be measured by evaluating self reports of the people. The only downside is that self reports cannot be precise because every people have different standards (Kalat and Shiota, 2007). The second and third perspectives are close to each other. They consider emotions as unconscious reactions and do not rely on the self reports. The second one is about the changes in the functions of the body and measures heart rate or changes in brain reactions. These methods determine the type or intensity of the emotion however one disadvantage is the requirement of medical devices as every researcher cannot supply easily (Kalat and Shiota, 2007). In the third perspective, emotions are measured by the researchers through observations on people's behaviors and expressions and every movement of facial muscles. The reactions of the people are videotaped and watched many times to realize the start and end of the each movement (Kalat and Shiota, 2007).

Each method has different advantages and disadvantages. Some of them try to understand which emotion is experienced while others measure the level of emotions in scales. Although there are different efforts which classify emotions, there is not any agreement on a specific model as universal among psychologists. It is because of the belief that emotions are too complex to be classified. Designers are interested in what causes emotions toward an object and in order to understand they look into psychology literature. For sure designers are not interested in emotions as much as psychologists do, however they have their own bases and reasons to understand emotions. The following part defines emotion from the design perspective.

3.2 Emotions in Design Literature

According to Desmet (2002) after being neglegted for many years, in the last decade a sudden interest have emerged about user emotions elicited by products. Subsequently since the emergence of emotion in design research, numerous studies have been conducted under the name of product experience and product emotions.

3.2.1 Basic Approaches to Product Emotions

Although there is an increased awareness about product emotion phenomenon, still there is small interest in design literature about proposing general explanations of product emotions (Desmet, 2007). In this chapter three basic approaches have been introduced and discussed about product emotions.

3.2.1.1 Pleasure Based Approach

Pleasure based approach is asserted by Jordan (2000). In this approach he defines pleasures as emotional, functional and hedonic benefits related with products. He uses pleasure framework proposed by Tiger (1992) as a base to his arguments. In this context pleasures are divided into four as physio pleasures, psycho pleasures, ideo pleasures and socio pleasures. Figure 3.2 represents these four pleasures.

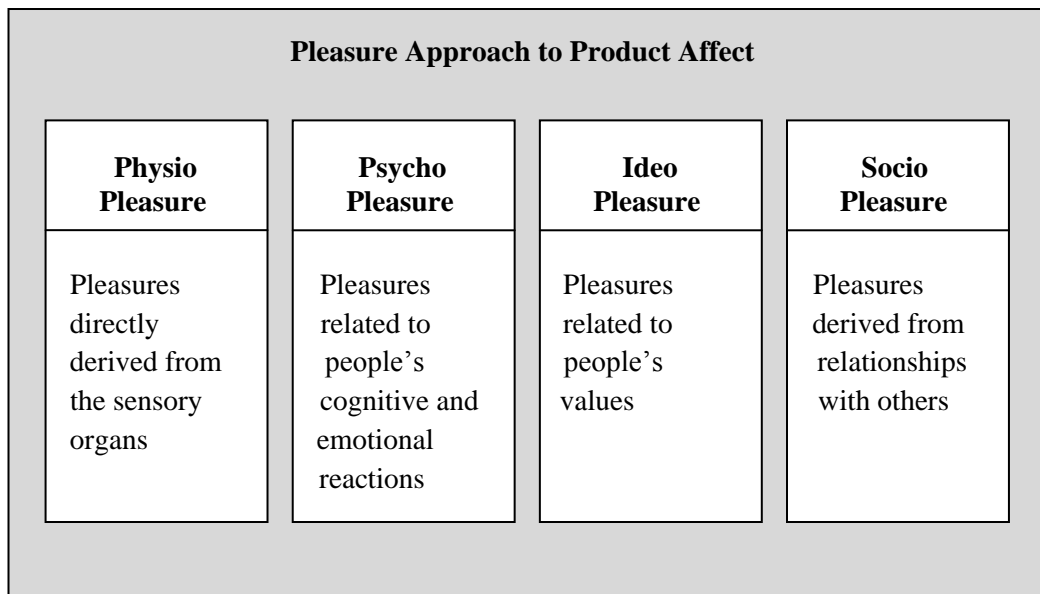| Pleasure Approach to Product Affect			
Physio Pleasure	**Psycho Pleasure**	**Ideo Pleasure**	**Socio Pleasure**
Pleasures directly derived from the sensory organs	Pleasures related to people's cognitive and emotional reactions	Pleasures related to people's values	Pleasures derived from relationships with others

Figure 3.2 Framework of Product Pleasure as Proposed by Jordan (1990)

Physio-pleasure is about our body and these pleasures are related with sensory interaction with products. As products are perceived directly by the sensory organs, they are directly evoke physiological pleasure or displeasure. Socio pleasure is about our relationships with other people. These pleasures are derived from products which make social interactions easier. Some of Jordan's examples are products that attract comments (like a piece of jewellery), or act as a focal point for social gatherings (like a coffee machine). Psycho-pleasure is about our cognitive characteristics and emotional feelings. It is what we expect from using the product at cognitive level.

Ideo-pleasure connected with people's values and experienced in response to products which are related with the values that the products embody. If a product made from recyclable materials, this may represent consumer's value about environmental responsibility. These type of products would be a potential source of ideo-pleasure to those who are particularly concerned about environmental issues.

According to Desmet et al. (2004) Jordan's pleasure approach provides important data for design subject. Jordan stresses that it is not a theory that is intended to give an insight into why people experience pleasure, but a tool that can make it easier for those involved in the design process to consider the full spectrum of the sorts of pleasures that products can bring.

3.2.1.2 Appraisal Approach

Desmet (2003) focuses on the emotional quality of products as he states that it is becoming important for differential advantage in the marketplace. He argues that, the products are becoming similar with respect to their technical characteristics, quality and price, therefore, the emotions elicited by the consumer products are becoming more important for the manufacturers.

Desmet (2002) explains how emotions elicited by products and conceptualizes basic model of product emotions. Taking the cognitive-appraisal theories as a base, Desmet defined four key variables in this model: product appraisal, product concern, product and emotion, as can be seen in Figure 3.3.
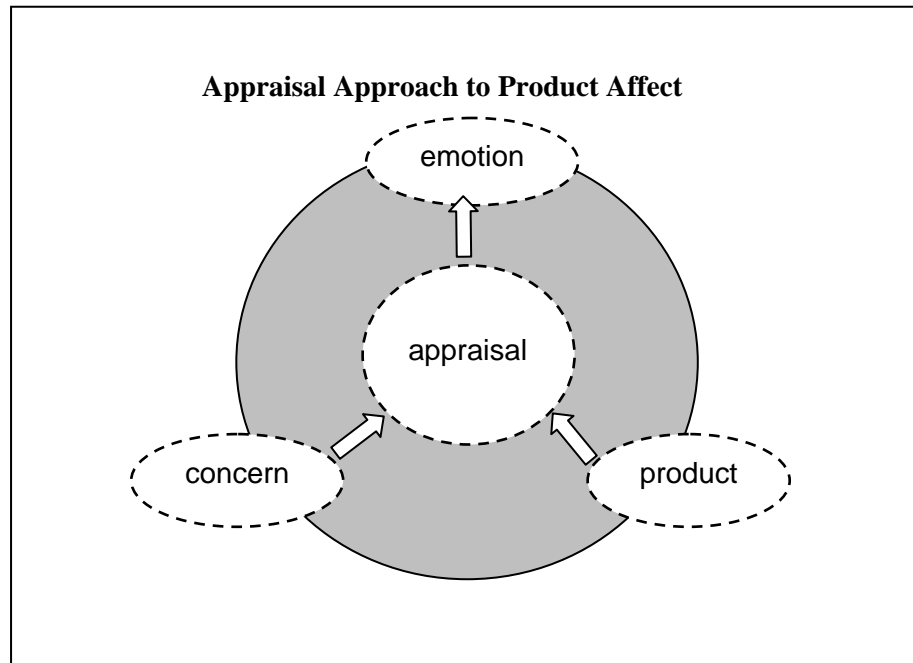
Appraisal Approach to Product Affect

Figure 3.3 Appraisal Model of Product Affect as Proposed by Desmet (2002)

According to this model, emotions are elicited towards a product are defined by the relationships of concerns and products which lead to product appraisals. Desmet (2002) defines appraisal as an outcome of the one's evaluation of the significance of the product according to personal well-being, and this significance, rather than the product itself, causes the emotion. This explains why people feel different emotions towards same product.

Human concerns are related with desired end states and every emotion has a concern in its core. As Frida (1986) states, "concerns can be regarded as points of reference in the appraisal process." Whether match or mismatch of the stimulus with our concerns, determine the significance of the stimulus to our well being. There are general concerns like fear, love and respect and also personal ones like being at work

on time. Attitudes, goals and standards are concerns related with products (Desmet, 2002)

According to Desmet (2002) attitudes are our dispositional likes/dislikes for particular products or characteristics of products. Attitudes may change with personal meanings as they related with our tastes of things and our personal experience with the products. An example is "I like my necklace as it is a special gift". If a product matches an attitude, it results in an emotion like desire, because it is evaluated as appealing. Likewise if it conflicts with an attitude, it results in an emotion like disgust, as it is evaluated as unappealing.

Goals are defined by Desmet (2002) as something people want to obtain and how people would like things to be. People want to buy products, because they have hidden goals, they want to achieve something or want to fulfill a need with consumer products. Goals are something connected to personal well-being of people. For example "I want to have more comfortable shoes". When products satisfies a goal, they are evaluated as motive compliant and cause satisfaction feelings, on the other hand when they obstructs a goal, evaluated as non-compliant and cause dissatisfaction feelings.

Also he defines standards as our norms, expectations or conventions about how things should be. While goals are about the conditions that people want to obtain, on the other hand standards are how they believe the conditions should be. Standards support the preservation of social structures. For example "I believe that young people respect elderly". If a product is suitable for our standards, it is considered as

legitimate and results in admiration, if not, it is illegitimate and results in hatred and displeasure.

Desmet (2002) doesn't classify knowledge and expectations as a specific concern type and defines them as our reference to what we know is fact. They are formed from our education and experiences all through our life. For example "I know bottom of the iron is hot". If products are parallel with our expectations and knowledge, they are considered as un-novel and lead to boredom. If they contrast with our knowledge and expectations, they are considered as novel and lead a pleasant surprise.

As "All emotions are preceded and elicited by an appraisal" (Roseman & Smith 2001), appraisal is the main variable of this model. Appraisals are formed by our judgements about the significance of the products for our concerns, at the same time they are non-intential because they are unconscious and automatic reactions (Desmet, 2002).

Appraisal type is the determinant of the emotion experienced. Thus Desmet (2002) divide appraisal types into four. Appraisal of our attitudes show appealingness, appraisal of our standards shows legitimacy, appraisal of our expectations and knowledge show novelty and also appraisal of our goals show motive compliance.

Apart from the product itself, products interpret different meanings and evoke emotions in various ways. According to Ortony, Clore and Collins (1988) there are three aspects of product that can be focused: events, agents and objects. Although product is an object, events and agents are also as improtant as product itself.

As Desmet (2002) states when products are appraised as events, the focus is on predictable or past consequences of owning and using the product. Although products are not events, lots of products emotions are related with this category. For example the opinion that "I can increase my social status with a Mercedes" is an anticipated consequence of a product". These anticipations about what goals can be achieved with the products happen every time when we see a product. Also anticipations may based on personal or societal perceptions and can be influenced by advertisements. Also products have meaning as an agents, which is the focus of what products represent. A product can represent the designer, company or a user group and the meaning as an agent again can be personally or socially different, as it is related to our expectations. The last focus is the product itself, its technological characteristics and visual semantics. Product focus can be related to all concern types. For example, "I desire an iPhone as simple forms are more appealing for me." is an object focus and related with an attitude of form. This focus is different from agents as it is related with the object itself not the representation of the object.

3.2.1.3 Process-Level Approach

Norman (2004) states three levels of design related with emotional responses: visceral, behavioral and reflective design which is related our instincts, usage of the product and outside effects and aspirations, in sequence. Also he adds that "Each is as important as the other, but each requires a different approach by the designer."

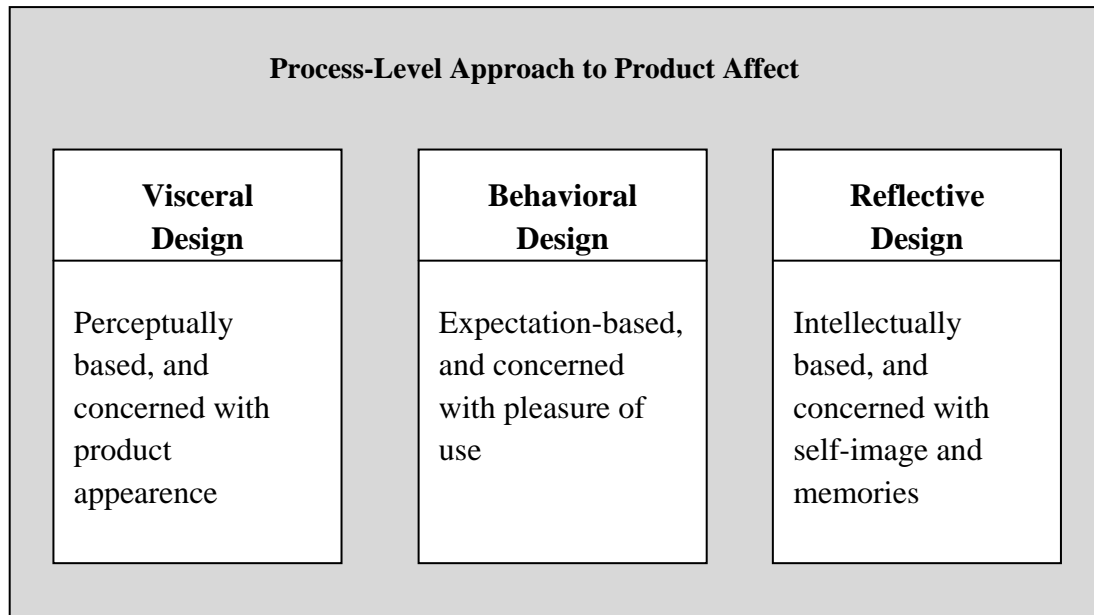| Process-Level Approach to Product Affect		
Visceral Design	**Behavioral Design**	**Reflective Design**
Perceptually based, and concerned with product appearence	Expectation-based, and concerned with pleasure of use	Intellectually based, and concerned with self-image and memories

Figure 3.4 Process-level Based Framework of Product Affect as Proposed by

Norman (2004)

Visceral level is basic for product emotions, it is related with people's internal and human feelings. According to Norman (2004) if something has a direct and unidentified impact to a person, it gives rise to an emotion at visceral level. For example at this level a consumer wants something at first glance without thinking what does it do or how much does it costs, which means physical features like appearance, touch and smell gain importance. At behavioral level physical features are less important, this level is related with the usage of the product. However appearance of the product is a contributory element in the usage context, as it gives an assumption about how the product should be operated. Norman (2004) states, referring to the behavioural level, "What matters here are four components of good behavioural design: function, understandability, usability, and physical feel." Reflective level is related with our culture and memories and the meaning of the

product or its use. Products have an important roll in our lives, as they make statements to others about us and reflect our self-image and aspirations.

3.2.1.4 Comparing Basic Approaches to Product Emotions

Although these three approaches show some essential differences, these approaches are not mutually exclusive and share some basic assumptions and theoretical considerations. The visceral level of Norman (2004) is similar to Jordan's (2002) Physio-pleasure. "Which is the pleasures of the body; sights, sounds, smell, taste, and touch." (Norman 2004) Physio-pleasures are a merge of the many aspects of the visceral level with some of the behavioral level (Norman 2004). Again Norman's behavioural level is similar to Jordan's (2002) Psycho-pleasure. "This deals with people's reactions and psychological states during the use of products." (Norman 2004). Also reflective level and Ideo-pleasure share the same content. These both concepts are related with appearance or quality or product may enhance life of the consumer or respects the environment. Lastly socio-pleasure is derived from the combination of reflective and behavioral design. It is related with the interaction with others and plays an important social role (Norman,2004).

3.2.2 Measuring Product Emotions

As product experience and emotions become one of the research topics of design research, a number of studies on measuring emotions have been carried out. On the bases of psychology literature, researchers have developed tools and methods to measure and understand emotions elicited by products effectively. In the design literature, these tools are grouped into two: generative and evaluative tools.

Generative tools are used to collect, represent or explore information and define product characteristics, and evaluative tools are used to measure sensory characteristics, expressions or meaning of products and emotional reactions to products. These tools are constructed mainly on four major methods: physiological measures, self-reports, questionnaires and pictorial scales.

1. Physiological measures are used to understand emotions of users towards products which include cameras, microphones and sensors to measure skin and pupil responses; however these methods cannot be regarded as totally precise in measuring emotions and understanding which emotions are evaluated (Dorman, 2002), since these emotions can be affected by the environment that the emotion is evoked.

2. Self-reports in measuring product emotions involve interviews, product evaluation forms, and product personality profiling techniques (Bruseberg and McDonagh, 2001) which all relate to user's self evaluation of products and emotions.

3. Questionnaires, adjective checklists and emotional scales are used mostly for measuring the level of emotions elicited by the product (Dormann, 2003). One of the developed emotion measuring technique is PAD Emotion Scales software, developed by Mehrabian (1996), which consists of 34 items including pleasure-displeasure, arousal-nonarousal and dominance- submissiveness scales.

4. Pictorial scales are also widely used in measuring product emotions. These nonverbal techniques are developed by researchers to make these scales universally used regardless of language differentiations (Desmet, 2002). Self-assessment

manikin (SAM) (Lang, 1985; in Dormann, 2003) and Emofaces (Desmet, 2002) include pictorial illustrations of emotions related to feelings of users.

Chapter 4

4 Analyzing and Measuring Emotional Responses towards Customer Co-production: an Empirical Research on IKEA Customers in Turkey

4.1 Design and Conduct of the Study

This thesis focuses on DIY products which are designed for self assembly experiences. This chapter represents the empirical study on emotional responses of consumers towards self assembly process and products and explains details of the methodology used in the study. First, the aim of the study is presented. Then the methodology of the study presented together with selection of the emotions and also how to categorizing IKEA product towards their complexity level explained. Participants of the study, equipment used and the study method are also explained. The third section introduces the results and analysis of the empirical study through the responses of the participants.

4.1.1 Co-production and IKEA Customers in Turkey

Before investigating emotional experiences of the IKEA customers, a semi-structured interview is held with the customer services manager of IKEA Ümraniye Store (İlksoy Can Solmaz), in order to introduce a general overview about IKEA customers in Turkey. Customer services manager was chosen for the interview

because he is experienced with the behaviors of the IKEA customers from the opening of the store. Main interview was about the adaptation of the IKEA concept and the shopping system into the Turkish market and also customers' comments on the IKEA concept and system of shopping experience. This topic is related to the main research topic of this study. It was adapted into questions which was guided the development of semi-structured interview.

Due to the IKEA concept, products are sold disassembled and IKEA customers always have the freedom of choice. They can assemble their furniture by themselves or they can request assembly form IKEA at an affordable price. The adaptation of IKEA concept and its product range into the Turkish market took time, because Turkish customers are not used to self service shopping.

Solmaz (2012) states that when IKEA first opened in Turkey, %80 percentage of the customers complained about the self-assembly and delivery, because in Turkey customers are used to buy finished products and have home delivery at the same time, they are not familiar to pay extra prices. Also customers demand for more staff around the store, as Turkish people are not used to self service in shopping and they do not read the communication around the store, they used to ask for help instead of discovering on their own. As the self delivery and self assembly concepts are new in Turkey, it takes time to customers to get used to it. Nowadays, after 8 years this rate decline to %10-15.

According to information Solmaz (2012) states majority of the customer request home delivery and assembly services. Customers are observed as if they pay for delivery services they also purchase assemble service as well. He also states that

there are two types of IKEA customers; first one is the planned customers who come to satisfy a need and buy huge pieces like a wardrobe, kitchen or whole living room. These planed customers prefer to pay for delivery and assembly. The other group is the unplanned customers, who likes a small piece of furniture and buy without thinking. They buy something like single coffee table, sofa or chest of drawers etc. and assemble the furniture by themselves. More customers prefer to assemble their furniture, as they realize that their cars have enough space for furniture they purchased in IKEA and they assemble and enjoy the products in the same day.

When customers get stuck during assembly they can ask for help by phone and it is easy to describe the process to the customer by phone, because the products are designed keeping in mind the self assembly. If they cannot assembly by themselves we direct the assembly firm. However it is not a problem, the customers again visit IKEA, it is rare to have problem with products.

4.1.2 Aim and Structure of the Empirical Study

As the mission of IKEA is about functionality, quality and affordability (internet, 2012); the company introduces DIY and co-production experiences to its customers. While the starting point is to reduce prices with the participation of customers to the activities previously held by the companies, there is an emotional side for customers as they are the producer of their own products. Although low prices and easy transport are obvious and practical, emotional sides of this type of co-production activities still remains unanswered. Therefore this study aims to investigate the emotions elicited during self-assembly experiences of consumer products and to identify ready to assemble product qualities which cause the most intense emotions.

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The main questions addressed in this study are:

- Which emotions are elicited during assembly experiences of the IKEA products?

- Which emotions are felt most intensely during self assembly process of customers?

- Which properties of the products that is designed for self assembly (so called flat-pack) elicit the most intense emotions?

In order to find answers to these questions, participants were asked to recall self-assembly experience of an IKEA product and report the emotions they had experienced during the assembly. The outcomes of the empirical study are expected to provide information about how co-production effects user's emotions during the self assembly experience, in both positive and negative level. It is expected that this information will give designers an overall idea about emotional sides of customer interaction with products and creation of product value. It will also be valuable for designers to understand user's expectations, experiences and perceptions in relation to participation of value creation. With the results of the study designers can evaluate the emotional effects of customer participation on production process of their own products and develop more valuable consumer products.

4.1.3 Sampling and Methodology

4.1.3.1 Selection of the Participants and Products

The aim of this study is to investigate emotional feelings of self-assembly experiences. Participants were selected randomly in IKEA Ümraniye store regardless their demographic values and assembled product. In total, 30 participants (15 female, 15 male) selected as respondents of the study. The last section of the interview was prepared to obtain demographical data from the respondents. According to the results of this part, the ages of respondents are ranging from 22 to 70, and with a mean value of 34. In terms of their educational background, 15 of the participants had a university degree, 4 of them were high school graduates, and 2 of them were secondary school graduates and 9 of them held a Master's degree. In addition, 13 participants were aged between 22-30 years old, 10 participants were aged between 31-40 years old, 5 participants were aged between 41-50 years old, also 1 participant was 55 years old and 1 participant was 70 years old.

As the participants were selected randomly, the product they assembled differs. A complexity chart among IKEA products is created to identify if there is a different emotional experience between simple and complex product assembly processes. The complexity chart is based on the simplicity of the assembly, number of components, component sizes and needed labor. The complexity chart can be seen in Figure 4.1.

Figure 4.1 Complexity Chart of IKEA Products

4.1.3.2 Decisions on Emotion Scales

As the empirical study is based on elicited emotions from the self-assembly products an emotion scale was created in relation to the reviewed literature. The 26 emotions which are presented on the interview questions had been edited from 'affect categories' of Scherer (2005), as it is the most extensive list which contains different types of affect related experiences. Also they are selected from empirical studies and published surveys about emotion (Scherer, 2005)

Within the framework of Scherer's original list of emotions, some minor changes have been made. Firstly, three of the affect categories that do not refer to particular emotions were not taken into the list (feeling, positive, negative). Secondly, the affect category of longing was decided to signify two different emotions, unrelated from each other and separated into two categories as desire and nostalgia.

As the study was conducted on Turkish customers, all emotions translated to Turkish through examining four different online translators (Word Reference, Babylon, Turkish Dictionary and Ectaco), in order to find the exact meaning of the each emotion. During examination it was realized that envy and jealousy and also anger and irritation have almost the same meaning in Turkish and they were considered to be the same emotion. In addition the affect category of lust was not taken into the list, because it was evaluated nearly the same with the affect category of desire. Also it was realized that the affect category being touched does not appear in neither of the translators. Lastly envy/jealousy, gratitude *(thankfulness)*, humility and nostalgia were thought that they are not related with the assemble experiences.

The final list of emotions that take place in the interview was: Admiration *(fascination)*, Amusement *(playfulness)*, Anger/Irritation *(madness, annoyance)*, Anxiety *(worried)*, Boredom, Compassion *(empathy, pity)*, Contempt, Contentment *(satisfaction)*, Desire, Desperation *(hopeless)*, Disappointment, Disgust, Dissatisfaction, Fear *(afraid, panic)*, Guilt, Happiness, Hatred, Hope *(optimism)*, Interest/Enthusiasm, Joy, Pleasure/Enjoyment, Pride, Relaxation/Serenity *(peacefulness, tranquility)*, Relief, Sadness *(grief, sorrow)*, Shame *(embarrassment)*, Surprise *(amazement, astonishment)*, Tension/Stress *(discomfort)*. As some of the emotions may not be clear of meaning, in parenthesis auxiliary words were used to help the participants to have a better understanding. These words were chosen from the Scherer's (2005) adjective lists of the related emotions. List of emotions appeared in alphabetical order on the interview sheet for each of the participants.

4.1.3.3 Data Collection Methodology and Structured Interview

In order to examine emotional sides of self assembly products, a set of structured interview were carried out. The interview question sheets were submitted by hand, after introducing brief explanation about the aim and the procedure of the study, participants asked to fill out the questions. In the first part they recall an experience of self-assembly process of an IKEA product that they made by themselves then they are asked five scale questions to evaluate intensity of the elicited emotions and also open ended questions to create a keyword pool including positive and negative attributes of emotional experiences of self-assembly products.

A typical session took between 10 to 15 minutes. The proposed study required direct user information as it was expected to understand emotions of users during self-

assembly and as well as the relationship between these emotions and properties of these type of DIY experiences. In this study, emotions of participants towards self-assembly product experiences and the reasons behind these emotions were investigated.

The study was conducted in Turkish which is the participants' native language, because it was carried out in a Turkish store and conducted on different education level participants. In addition exploring emotional feelings in native language is more logical. The terminologies of emotions were translated from English through online translators and translations were cross-checked by research colleagues and where necessary more than one word is provided for much clear meaning.

In order to examine the emotions that are elicited during self-assembly of the consumer products, a structured interview was designed. In this interview, the participants were asked to recall self-assembly experience of an IKEA product. The first question aimed to understand if the assembled product was simple or a complex one in order to investigate if there is a relation between emotions and complexity of the assembly process. Then the interview divided into 5 parts. The first part of the interview, Part A, intended to understand motivations of DIY experiences. Second part of the interview which is Part B aimed to find out the intensity of the emotions felt during assembly of the participant's product. In order to understand the level of emotions, these emotions were evaluated against a five-point scale ranging from (1) 'not at all' to (5) 'extremely'. Part C is about the outcomes of the DIY experience. In this part again participants scale their emotions about their assembly performance and the finished product. The next part, Part D, aimed to investigate information about design and emotion. First explore, if the product increase in value after being

assembled by the customer and if the customer feels more sense of belonging after self assembly. Then participants were asked to explain the reasons behind their most intense emotions that they rate highly. And if they would buy the same product again, would they like to assemble the product again by themselves and the reason of this. Last the participants asked to fill in demographic information including, age, gender and education level.

4.1.4 Results and Analysis

This section presents the results and analysis of the study. The data analyses were undertaken separately for each section of the interview, then being cross-compared with the findings for each group.

In the following sections, research data are analyzed through statistical analyses of emotion scales, graph analyses and content analyses. Data collected during the study is analyzed under four headings according to four part of the structured interview.

In the first part motivations for self assembly are presented. Second part introduces the emotions felt during self assembly experience. Third part investigates emotional outcomes of self-assembly. And the last part presents information about the relationship between emotions of users and self-assembly product qualities which is a valuable source of information for design and emotion.

The interview is structured to aim to investigate if there is a difference on emotional scale according to complexity of the assembled product. Therefore participants were asked which IKEA product they assembled before they filled out the questions. As all customers have assembled more than one IKEA product, it is observed that they

evaluate their emotions according to their general impressions about self assembly process. Therefore it is hard to collect data about one self-assembly experience. As all data are about one ore more experiences, there is not any information about the connection of complexity level of the process and emotional experience of the self-assembly.

4.1.4.1 Motivations for Self-assembly

First part which is Part A presents the motivated factors of customers to undertake self-assembly experience. The aim of this part is to understand the relationship between the emotions of users and the motivated factors of self-assembly.
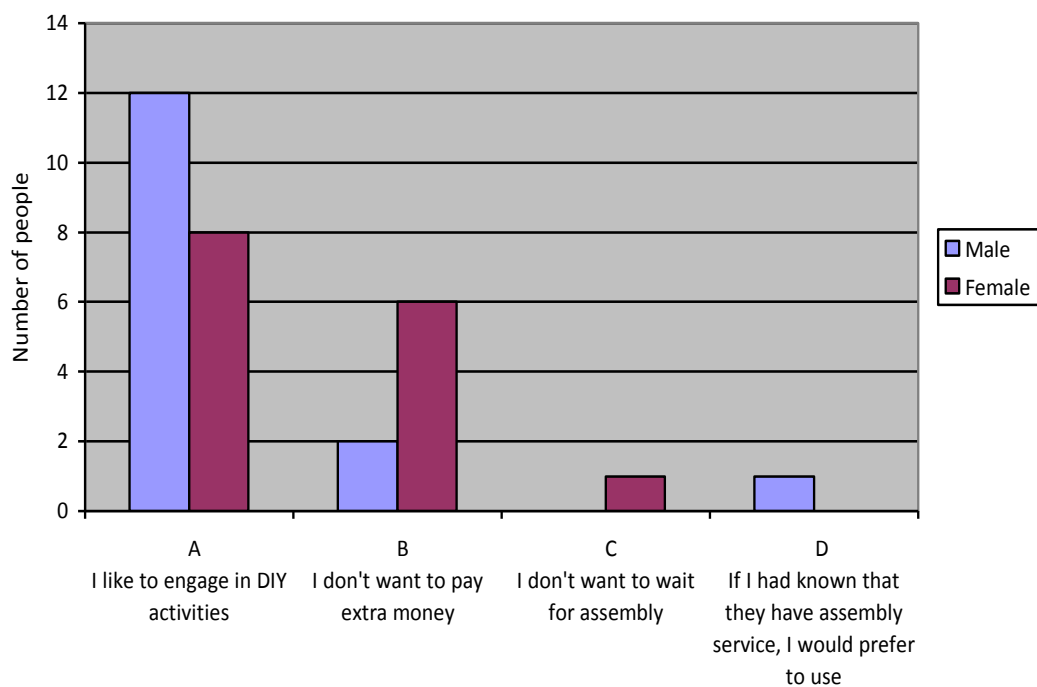

Figure 4.2 Motivations for Self-assembly

In this study 20 participants (12 male, 8 female) stated that they like to engage in do it yourself activities. Conversely 8 participants (2 male, 6 female) don't want to pay

extra money (The cost of the assembly service is linked to the distance of the local IKEA store to the customer house plus 20% of the full retail purchase price.). 1 participant stated that she didn't want to wait for assembly service. 1 participant stated that he didn't know that IKEA has an assembly service. If he had known, he would prefer to use assembly service. These datas show that need for saving is a strong motivator for accomplishing self-assembly projects. Because of the financial concerns, many people try to save money by using their ability, skills and labor (Wolf and McQuitty, 2011). Also self production is appeared as leisure (Watson and Shove, 2005), if the consumer is interested in self-production the goal might be providing enjoyment.

This part aimed to explore if there is a significant change in emotional experiences when motivativated factors are different for self-assembly. There is not any remarkable emotional differences according to the motivation factor. However it might be because of the number of participant, it can be tested on a large group of participants.

4.1.4.2 Emotions Felt During Self-assembly Experience

In the second part of the interview questions, the participants were given a list of emotions to grade in a five-point scale. Throughout the study, positive and negative emotions were presented together in an alphabetical order; however, these emotions were categorized to visualize the relationship and relative distance of the emotions. These grades were analyzed in terms of their average scores and standard deviations, which can be found in Table 4.1.

Pleasure / Enjoyment	**M= 4,10**	**s.d.= 1,06**
Interest / Enthusiasm	**M= 4,03**	**s.d.= 1,03**
Amusement (playfulness)	M= 3,90	s.d.= 1,06
Happiness	M= 3,80	s.d.= 1,06
Relaxation / Serenity (peacefulness)	M= 3,70	s.d.= 1,23
Desire	M= 3,66	s.d.= 1,49
Joy	M= 3,50	s.d.= 1,13
Relief	M= 3,10	s.d.= 1,56
Anger / Irritation (madness, annoyance)	M= 1,86	s.d.= 0,86
Tension / Stress (discomfort)	M= 1,60	s.d.= 0,85
Boredom	M= 1,50	s.d.= 1,00
Anxiety (worried)	M= 1,43	s.d.= 0,81
Fear (afraid, panic)	M= 1,36	s.d.= 0,76

Table 4.1 Average Scores and Standard Deviations of the Given Emotions

As can be seen in Table 4.1, the first set of emotions consists of positive emotions in other words self-assembly process is mostly associated with pleasant emotions and states. Within these, pleasure/enjoyment and interest/enthusiasm took the highest scores.

And it is followed by amusement, happiness, relaxation/serenity, desire, joy and relief. Their relatively high scores indicate that majority of the participants agree on the elicitation of these emotions during self-assembly. Negative emotions tension/stress, boredom, anxiety and fear score under the average two.

On the other hand, there are some personally specific emotions. These are Relaxation/serenity, desire, joy, relief. Their high standard deviations indicate that the elicitation of these emotions is specific to the personal skills and interest that the participants have. For example some of the participants graded relaxation/serenity, desire and joy with the highest score because they enjoy do it yourself experiences. On the other hand some of them obviously who doesn't have enough interest, skill

and confidence rate the emotions of tension/stress, boredom, anxiety or fear higher. Therefore these emotions were graded differently by different participants depending on the personal skill and the interest of the participant.

As stated, during self assembly most intensely elicited emotions are pleasure/enjoyment and interest/enthusiasm. In order to understand the relation of these emotions with DIY experiences, it would be convenient to briefly define these emotions and mention the appraisals behind their elicitation before discussing the findings of the study.

The results of the analysis signify that interest is the emotion that is elicited during self-assembly experiences mostly (M=4.03). In psychology literature many studies questioned whether interest is an emotion or not, which makes it a contradictory emotion. According to some psychologists interest is not an emotion as they consider it as a cognitive state rather than an affective state (Oatley & Johnson-Laird, 1987, in Ortony & Turner, 1990; Ekman, 1994; Lazarus, 1991, in Silvia, 2005). Orthony and Turner (1990) claimed that interest can cause some emotions to be elicited or may be the outcome of some emotions. Conversely, recent studies deal with interest as an emotion. Izard (1977, in Cornelius, 1996) believes that interest is the most frequently experienced positive emotion and defines it as "the most prevalent motivational condition for the day-to-day functioning of normal human beings". Interest is considered as the emotion connected with exploration, curiosity, gaining knowledge and attention (Izard, 1977, in Cornelius, 1996; Tomkins, 1962, in Silvia, 2005), and it has a function of exploring and collecting information and learn about the environment (Izard, 1977, in Cornelius, 1996). According to Silvia (2005) interest comprises an appraisal of novelty-complexity (if the object or event is new,

unexpected or complex) and followed by a coping behavior (understanding, evaluating and control or dealing with the new, different and complex thing). Also he adds that pleasantness, goal and motive consistency and expected reward are related with the interest, however they are not dominant and not to be in all interesting things and activities. The results of the recent studies of Turner and Silvia (2006) strongly suggest that interesting things don't need to be pleasant. As the function of interest is to encourage exploration and collecting information, it cannot be limited to pleasant things. This judgment is acceptable for goal and motive consistency and expected reward as well (Silvia, 2005).

Pleasure/enjoyment shares the first place with interest in relation to the emotions elicited during self-assembly experiences of products (M=4.03). As Watson and Shove (2005) indicate there are pleasures, challenges, satisfaction and frustrations of carrying out DIY projects. There is an enjoyment gained from undertaking DIY projects and pleasure of interaction with tools and materials. DIY projects make people feel necessary and fill a big gap in everyday routine. If the work is engaging, challenging and stimulating, it is enjoyable and pleasurable.

4.1.4.3 Emotional Outcomes of Self-assembly

In this part of the interview, again the participants were given a list of emotions to grade in a five-point scale and these grades were analyzed in terms of their average scores and standard deviations which can be found in Table 4.2. Like the second part of the interview, positive and negative emotions were presented together in an alphabetical order; however, these emotions were categorized to visualize the relationship.

Admiration (fascination)	**M= 4,20**	**s.d.= 0,96**
Contentment (satisfaction)	**M= 4,13**	**s.d.= 0,73**
Pride	M= 3,90	s.d.= 1,18
Contempt	M= 1,43	s.d.= 1,00
Surprise (amazement, astonishment)	M= 1,40	s.d.= 0,85
Disappointment	M= 1,26	s.d.= 0,63
Dissatisfaction	M= 1,20	s.d.= 0,48
Compassion (empathy, pity)	M= 1,13	s.d.= 0,43
Hatred	M= 1,06	s.d.= 0,25
Shame (embarrassment)	M= 1,00	s.d.= 0,00
Sadness (grief, sorrow)	M= 1,00	s.d.= 0,00
Guilt	M= 1,00	s.d.= 0,00
Disgust	M= 1,00	s.d.= 0,00

Table 4.2 Average Scores and Standard Deviations of the Given Emotions

After completion of self-assembly admiration (M=4.20) and contentment (M=4.13) are the most intensely elicited emotions. Their relatively less standard deviations point out that most of the participants think the same about the elicitation of these emotions after completion of self-assembly. This attitude can also be seen in the negative emotions. Tension/stress, boredom, anxiety, fear took the lowest scores with low standard deviations. Their low standard deviations indicate that majority of the participants agree on the irrelevance of these emotions with the completion of self-assembly experience.

The results of the analysis signify that admiration (M=4.20) is the most intensely elicited emotion after self assembly experience. As we admire achievements in ourselves and others, DIY activity can attract attention and admiration related to the achievement of being able to manage problems. Self assembly activity is also a type of problem-solving process which has the potential to provide customers with a sense of accomplishment (Wolf and McQuitty, 2012). The study of Wolf and McQuitty (2012) about DIY projects illustrates that at the end of the activity when they

accomplish their projects, every participant feels a sense of accomplishment, as they realize their potential and capabilities for future DIY projects.

As an outcome of the self-assembly experience, contentment (satisfaction) takes the second place (M=4.13). The term is defined as a result of an expected desirable outcome (Ortony, Clore & Collins, 1988, in Demir, 2007). Contentment involves an expectation match as it is an anticipatory emotion (Desmet, 2002) and involves an expectation confirmation dimension, because there should be a desirable outcome that the users want to achieve (Demir, 2007).

4.1.4.4 The Relation between Emotion and Self-assembly Product Qualities

Last part of interview reveals the reasons behind the most elicited emotions. Reported results are designed to address the issue of revealing the emotions that participants feel most intensely during self-assembly experiences. The statements that were declared by all participants as the reasons of most elicited emotions of self-assembly experience and outcome of self assembly were content analyzed. Examples of listed keywords can be seen in Table 4.3.

	Admiration/ Fascination	Pleasure/ Enjoyment	Interest	Contentment	Amusement	Relaxation	Pride	Joy	Happiness	Surprise	Desire	Relief	Boredom	Anger	Stress
Being able to achieve / I saw that I can do / Finishing the product	****	***				**	** **	**		*					
Cleverly designed	*														
I proud of myself	*														
I feel competent	*										*				
To reveal a furniture / To create a whole from the separate pieces	**	*	*												
Being able to solve the puzzle / Solving the problem and creating a whole	*	**	*		*		*								
It was like playing with legos / a puzzle / a play / It was interesting to join all the pieces		*	**	*	** **										
As I like to engage these type of activities / I wanted to start immediately		*	**		**						*				
I create something good / The completion				*											
I spend good and enjoying time		*		*	*	**									
The excitement of the first assembly experience			*												
To use the product that I made / As it is going to be made by myself			*	**	*		*	*							
How to do it			*												

Table 4.3 Participants' Statements about Emotions in Relation to Self-assembly

Experience (each asterisks represents one participant's experience)

	Admiration/ Fascination	Pleasure/ Enjoyment	Interest	Contentment	Amusement	Relaxation	Pride	Joy	Happiness	Surprise	Desire	Relief	Boredom	Anger	Stress
If I could complete the assembly and how it will look like			*												
It is detailed designed and easy to assemble / Completed easily and quickly than I expect				***											
As all the pieces fit together				*											
It was entertaining to do something together					**										
I realized my skills and capabilities					**		*								
As I did something that my friends couldn't do					*										
These type of activities make me feel relaxed						*						*			
To make an effort						*									
To have the product that I wanted						*									
It took a long time													*		*
It was a waste of time													*		
I had limited space													*		
I have to screw a lot													*		
It was exhausting														*	

Table 4.3 Participants' Statements about Emotions in Relation to Self-assembly

Experience (each asterisks represents one participant's experience)

Majority of the mentioned emotions according to self-assembly experiences are; *admiration/fascination, pleasure/enjoyment, interest/enthusiasm, contentment, amusement, relaxation/serenity, pride and joy.* Admiration/fascination and pride mostly associated with achievement, accomplishing a goal and being able to proof personal skills. Beside this some of the participants state that they admire the designer that how cleverly they designed the products and some of them admire themselves how they can easily solve this puzzle. Pleasure/enjoyment mostly related with successful completion of the task and solving the problem. Also there is a personal interest on these kinds of experiences. Creating something, spending good time, building something like playing with Lego pieces are the other relevant statements about pleasure. The things that cause the emotion interest/enthusiasm is the curiosity of how to deal with an unexplored situation, solving the problem (puzzle) or to create a whole from the separated pieces.

Participants mention easy assembly process and getting something good about the emotion contentment. In addition revealing a self made product is another reason for contentment. Amusement is about making something enjoyable and playful, about sharing ideas with friends or family and related with the personal interests. Another emotion is relaxation/serenity which was mentioned by participants. They asserted that to spend a good time and to deal with something different make them feel relaxed. Some participants mention that they are proud of themselves about their achievement and their skills and capabilities. Also some of them feel joy when they see that they can do it easily and complete without problem or after completion of the product when they use their self-made furniture.

Also there are negative emotions that some participants mention about but they are relatively few. One participant feels boredom as he doesn't have enough space and it takes a long time. The other one was bored as he thinks it is a waste of time to have to screw a lot. One participant felt anger/irritation because she feels it as a hard work. Also one participant feels stress as it takes a long time.

As it is observed that some emotions have similar eliciting reasons. Mostly mentioned reason is the personal accomplishment. Participants demonstrated positive feelings like feeling personal accomplishment, accomplishing a great task or having a great achievement. As a feedback of their effort, seeing their completed furniture may be a reward for who have a high need for achievement. One participant compared the sense of achievement from self-assembly experience with creating completely new object. These responses implies that when people overcome a challenging activity there is a satisfactory completion because people like to feel that they are independently cope with the challenge and have mastered a task.

After assembling the product by myself the product increase in value for me	M = 3,90 s.d. = 0.99
To complete the product by myself made me feel more possesive	M = 3,80 s.d. = 0,99

Table 4.4 Participants' Statements about Value of Self-assembly Product after Completion

Most of the respondents state that after assembling the product by myself the product increase in value for me (M=3.90) and to complete the product by myself make me feel more possessive (M=3.80).

Related with these findings, Troye and Supphallen (2012) states, when people involve in a self-productive activity, a series of interactions happen and create multiple memory links between the self and self produced outcome. As most people have positive evaluations of themselves, self production increases thoughts about the positive attributes of the products and also emotional attachment to the product (Norton et. al., 2009). Also Norton et al (2009) state that in their study positive value of adding labor was both consistent and significant across all participants. The increased labor leads to greater appreciation of the self made product. Investigating time enhances the emotional significance of an event much more than money. If consumers participate in the production process, the emotional satisfaction is over the value placed on the physical product itself (Atakan et al. 2010).

Would you like to do the same product by yourself again?	
YES	
To see myself as a capable person made me feel good	*
As I saw that I can do it	*
As it was an enjoyable experience	***
As it was entertaining	**
As it was enjoyable to make your furniture by yourself	*
As I like to engage in these kinds of activities	*****
As it was easy to assemble	**
As I didn't have any trouble	*
As I can handle these problems	*
As it was nice to have something with your effort	*
As I like solving problems	**
As it improves problem solving capability	**
As it removes your daily problems away	*
As I saw my capabilities	*
Although it was a stressful activity it was enjoyable	*
Although sometimes you get angry, it was nice to do smt. by yourself	*
I don't want to pay extra money	*
NO	
I don't want to spend time on these kind of activities	*
As it was difficult to do it	*

Table 4.5 Participants' Statements about Making the Same Product Again

Majority of participants (28) want to do the product again by themselves, even the ones that state some negative emotions like anger/irritation and tension/stress. They mention that although it makes people stressed and angry, it is nice to create something by yourself with your effort; in spite of everything it is enjoyable. Wolf and McQuitty (2011) also mention the same about their study; although participants fail or experience unexpected difficulties during the project all of them sign their DIY projects as enjoyable. Also according to the research reports that IKEA conducted among Turkish customers in 2012, %80 of the customers are happy about

self transport and self assembly strategy. It is also parallel with the participants responses of this study.

The reasons that participants mention what makes them assembly the product again is the easiness of assembly, pleasantness of the experience, enjoyment of problem solving, the sense of accomplishment and realizing and improving personal skills. The study of Wolf and McQuitty (2011) also reveals that when participants accomplish their projects they realize their potential and capabilities and all of them feel a sense of accomplishment. Also self assembly experience makes people feel more competent (Norton, et. al., 2009).

4.1.4.5 Demographic Values

At the last part of the interview demographic information of the participants were collected. In this study age, gender and education level were not evaluated as an input data, as there is slightly little differences. Without distinguishing gender or education it is the satisfaction of self assembly experience that causes these results. And also personal skills and interests are crucial in these kinds of self related experiences. It is hard and pointless to make comparison according to gender or education level at this point.

Chapter 5

5 Discussions and Conclusions

5.1 State of the Literature

The present study investigates emotion related issues through the context of self assembly experience. It consists of five chapters and starts with brief introduction about the thesis topic. Chapter 2 deals with two self production models, customer co-production and DIY experience. According to a brief literature review, in co-production issue there is collaboration between customers and service providers and customers directly involve in the design, delivery or marketing of goods and services they consume. Customers are seen as a resource of knowledge and labor. Also DIY experience is a component of user experience that comes to prominence in last decades. DIY has unique qualities which distinguish it from other user experiences. DIY is related to playfulness, enjoyment and interest, it is a kind of interest that distracts the person from him/herself. As a matter of fact, still there is not any comprehensively constituted framework in the literature to explain which experiences are included in the scope of DIY. The literature survey reveals several studies investigating DIY experiences, however these studies mostly about home repair and maintenance, they are not specifically concentrated on

industrial products. After concentrating on co-production and DIY brief history of IKEA and the development of IKEA concept are introduced, as it is related with both experiences.

In Chapter 3 psychology and design literatures are reviewed to understand theoretical background of the user emotions. From the psychology literature, definitions and components of emotions and also methods of measuring emotions are provided. According to psychology literature emotion has no single universally accepted definition which makes it a very complex phenomenon. Also researchers define basic emotions in order to provide an explanation of some routine observations about emotions and every emotion researcher admit that some emotions are basic however the questions like how many emotions are basic, which emotions are basic and why they are basic, are debatable. So every researcher believes in different basic emotions towards their theory and explanations. Following the psychology literature, the user emotions are explained in relation to design literature. Emergence of emotional attributes in product design and basic approaches to product emotions are studied to understand the bases of user emotions towards products. Product emotions are explained according to three approaches: a. Jordan's pleasure based approach, b. Desmet's appraisal approach and c. Norman's process-level approach. Design literature states that product emotions are personal, temporal and mixed, which means that the user can be affected differently by a product at different times, and these emotions can be positive and negative at the same time. In literature there are several studies on emotional product qualities, however these studies focus on just product appearance, they are not concentrating on the interaction with user and the product.

The literature review reveals that DIY and co-production studies are not deal with emotional sides of these self productive experiences. In both literatures emotional dimensions of self production are not discussed. To understand emotional experiences of consumers an empirical study was conducted. The procedures, results and analyses of this research are presented in Chapter 4 of the thesis, which explaines the relationship of self assembly experiences and customer emotions. Interview questions are formed in four parts which investigates motivations for self assembly, emotions felt during self assembly experience, emotional outcomes of self-assembly and the relationship between emotions of users and self-assembly product qualities. The results of the study are considered as preliminary information for filling the gap between emotional experiences of self assembly products and how they can be integrated to design.
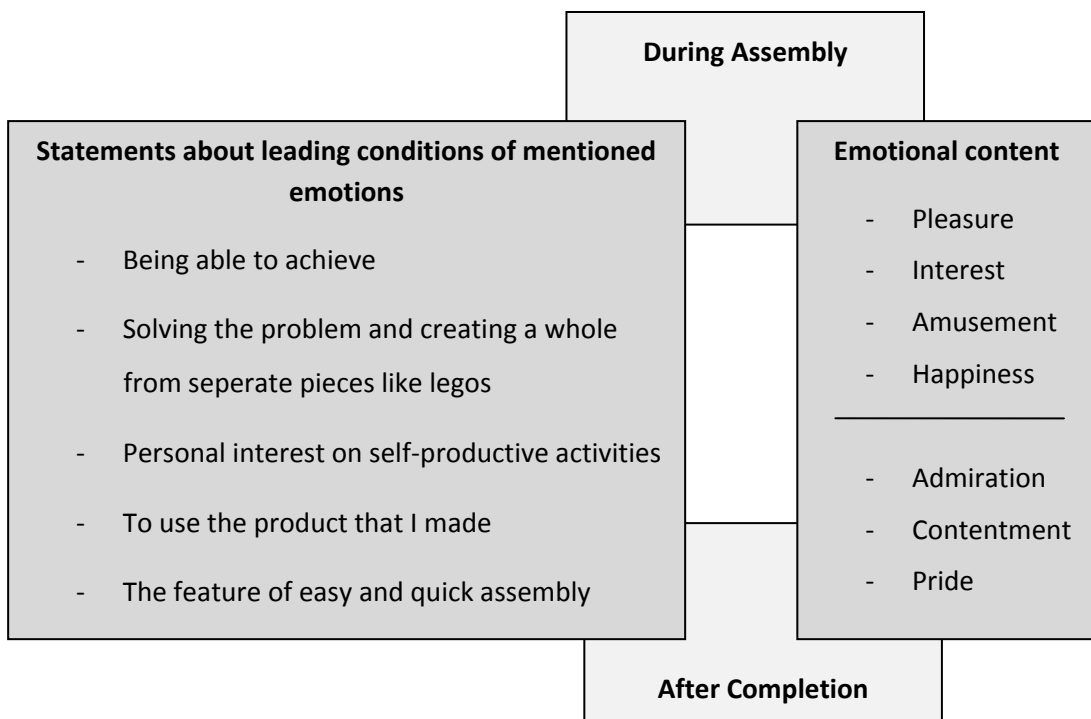
Figure 5.1 Components of User's Self-assembly Experiences

Figure 5.1 illustrates components of user's self assembly experiences. Emotions of pleasure/enjoyment, interest/enthusiasm, amusement, happiness, admiration, contentment and pride are most intensely elicited according to self assembly experiences. The results of the empirical study showed that there is a close relationship with positive emotions, self experience and self produced products. Also even though a few people feels a few negative and annoying emotions according to assembly phase (Figure A.1 shows analysis of emotions about self-assembly experiences), the outcome is perceived positively which means people evaluate self related products more positively. This is an important data for design and emotion issues. As DIY literature is a newly developing literature there are not any studies that mention about something negative about these DIY experiences. This study also tries to investigate if there is a negative aspect of self assembly; however negative emotions are not at a significant level.

The interview questions address the emotional attributes of the products; at the same time the answers include the product qualities that referred to most elicited emotions. These mostly elicited positive emotions are emerged from mostly the need of being able to achieve, the interest of solving the problem and creating a whole from separate pieces, the intention of spending good time, the desire of using the self produced product, personal interests on engaging self production and also the features of playfulness and easy to assembly. These are all related with the incorporation, appealing, playful, striving and informative qualities of self assembly products.

The characteristics of DIY activity which have been mentioned in related literature and responses of the participants in the present study constitute a valuable data for

the product designers to understand users' perceptions and expectations in relation to self productive products. Although driving forces of DIY products are easy assembly and delivery and low prices, they also have sensually fulfilling characteristics, which contributes the success of these products. As emotional sides of DIY products are as important as their other obvious benefits, at this point product designers have some responsibilities in order to improve emotional experiences of the user. When designing a new product designers should be interested in consumer behaviors and expectations. They should eliminate negative emotions, which some of the participant states like boredom, anger and stress, which are resulting from long assembly process, screwing a lot, doing a hard work. Designers should pay importance to these problems and develop ideas about effective connection and assembly details in order to make people more comfortable through the assembly process.

Also it is concluded that leaving some of the employment to the customers is an affirmative behavior, as it increase the interaction between the user and the product. At the same time as it provides the customer a sense of achievement and satisfaction. If consumers have to complete even a part of a product, it attracts attention and interest and this completion makes the product emotionally more valuable. As the role of the designer is analyzing users, investigating their expectations and needs and then generating design possibilities, research efforts like this thesis can be helpful for designers in creating more successful, emotionally engaging and valuable product experiences.

5.2 Further Research and Limitations of the Study

The present study interested in the emotions of users and focused on the relationship between self assembly experience and related emotions. During different phases of the research, there aroused several limitations and new questions related to the issues mentioned in this thesis.

First of all the study was conducted on the IKEA customers in Turkey and the results are related with Turkish people. The study should be replicated with different countries in order to ensure the consistency of the findings. Within the time limits of the study, it was not possible to design a research for a large group of participants, therefore there isn't sufficient information in order to make any connection about complexity level of the process and emotional experience of the self-assembly. And also as all customers have assembled more than one IKEA product, it is observed that they evaluate their emotions according to their general impressions about self assembly process. Therefore it is hard to collect data about one self-assembly experience. As all data are about one or more experiences, there is not any information about the connection of complexity level of the process and emotional experience of the self-assembly. Nonetheless, findings of the empirical study gave a good indication about the questions of this research and reveals valuable results on emotional outcomes of self-assembly experiences.

Also there are several new questions that can be considered as suggestions for prospective studies. For further studies, it would be noteworthy to conduct a study that is focused on the assembly of three or four specific products which are different from their complexity level of assembly and examine if the emotion expressions are

similar or the same. Such a study would confirm if the findings are the same to all self assembly products or differ with the complexity level, consequently, provide more credible results. Another opportunity for further research can be focused on a larger group of participants and investigate if there is a difference on emotional responses with demographic values like age, gender and education level or motivated factors for self-assembly.

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Appendix A

Structured Interview Questions

Katılımcı no........

Kadir Has Üniversitesi
Sosyal Bilimler Enstitüsü
Tasarım Yüksek Lisans Programı

Değerli Katılımcı,

Bu duygusal değerlendirme çalışması, Kadir Has Üniversitesi, Endüstri Ürünleri Tasarımı Bölümü'nde yürüttüğüm, 'Ortak Yapım Sürecindeki Tüketici Duygularının IKEA Türkiye Müşterileri Üzerinden Değerlendirilmesi' başlıklı yüksek lisans tez çalışması için kullanılacaktır. Bu çalışmanın amacı, tüketici ile firmanın ortak yapım etkinliği olan montaj aşamasında tüketicilerin duygusal deneyimlerini araştırmaktır.

Bu anket çalışmasında sizden kendi monte etmiş olduğunuz bir IKEA ürününü yaptığınızı anı hatırlamanızı ve deneyimlerinizi içeren anket sorularını cevaplamanızı istiyorum. Anket çalışması yaklaşık 10 dakikanızı alacaktır. Bu çalışmada, doğru ya da yanlış olmadığını, önemli olanın sizin ifadeleriniz olduğunu belirtmek isterim.

Bu anket verileri, sadece bu tez çalışması kapsamında kullanılacak ve üçüncü şahıslarla kesinlikle paylaşılmayacaktır.

Katılımınız için teşekkür ederim.
Işıl Karataş
Kadir Has Üniversitesi-Tasarım Yüksek Lisans Programı
Yüksek Lisans Öğrencisi

Bu anket çalışmasında kendiniz monte etmiş olduğunuz bir IKEA ürünü yaptığınız anı hatırlamanızı istiyoruz. Ürünü kendiniz monte etmiş olduğunuz bir süreç olmasına dikkat edin.

Şimdi lütfen birkaç dakika ürünü monte etme sürecinizi hatırlayın ve aşağıdaki soruları cevaplayın.

- **Hangi IKEA ürününü kendiniz monte ettiniz?**

....

A GRUBU

- **Neden montajı kendiniz yapmayı tercih ettiniz?**

☐ Kendin yap aktiviteleri ile uğraşmayı seviyorum.

☐ Ek bir ücret ödemek istemedim.

☐ IKEA'nın montaj hizmeti verdiğini bilmiyordum, bilseydim onların yapmasını tercih ederdim.

☐ Montaj için vakit kaybetmek istemedim.

B GRUBU

- **Montaj esnasında neler hissettiniz?**

	az yoğun			çok yoğun	
	1	2	3	4	5
Eğlendim					
Kızdım / Sinirlendim					
Endişe duydum (Yapamayacağıma dair, çıkan işin iyi olmayacağına dair)					
Canım sıkıldı					
Mutlu oldum					
İlgi / heyecan duydum					

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	az yoğun			çok yoğun	
	1	2	3	4	5
Neşelendim					
Zevk aldım					
Gerildim / Stres oldum					
Korktum / Kaygı duydum (Yanlış yapacağım, bitiremeyeceğim diye)					
Rahatladım (Günlük uğraşlardan farklı bir şey yapmak beni rahatlattı)					
Sıkıntılarımdan kurtuldum (Kafamdaki sorunlardan kısa süreli de olsa uzaklaşmış oldum					
Güçlü bir istek/arzu hissettim (Ürünü kendim yapmak için)					

C GRUBU

- **Montajı bitirdiğiniz performansınızı ve ortaya çıkan ürününüzü nasıl buldunuz? Kendi yaptığınız işle ve ürününüzle ilgili duygularınız neler?**

	az yoğun			çok yoğun	
	1	2	3	4	5
İğrendim					
Tatmin / Hoşnut olmadım					
İftihar / Övünç duydum					
Takdir ettim					
Acıma merhamet duydum (Düzgün bir iş çıkaramadığım, beceremediğim için)					
Küçümsedim					

Memnuniyet/Hoşnutluk duydum | | | | |

Hayal kırıklığına uğradım | | | | |

Nefret ettim | | | | |

Üzüldüm | | | | |

Utandım | | | | |

Şaşırdım | | | | |

Suçluluk hissettim
(Ürünü istediğim gibi yapamadığım için kendimi suçladım)

D GRUBU

Bu ürünü kendim yaptıktan sonra benim için değeri arttı

1	2	3	4	5

Ürünü kendim yapınca daha çok sahiplendim

1	2	3	4	5

- **Montaj aşamasındaki en yoğun 3 duygunuzun nedenlerini düşünün nasıl açıklarsınız?**

☐...Neden?

☐...Neden?

☐...Neden?

- **Bu ürünü şuanda yeni almış olsanız kendiniz yapmayı tercih eder misiniz, neden?**

☐ Evet............... ....Neden?

☐ Hayır............... ....Neden?

E GRUBU

Yaşınız:

Cinsiyetiniz:

Eğitim:

Zaman ayırdığınız için çok teşekkür ederim.

Appendix B

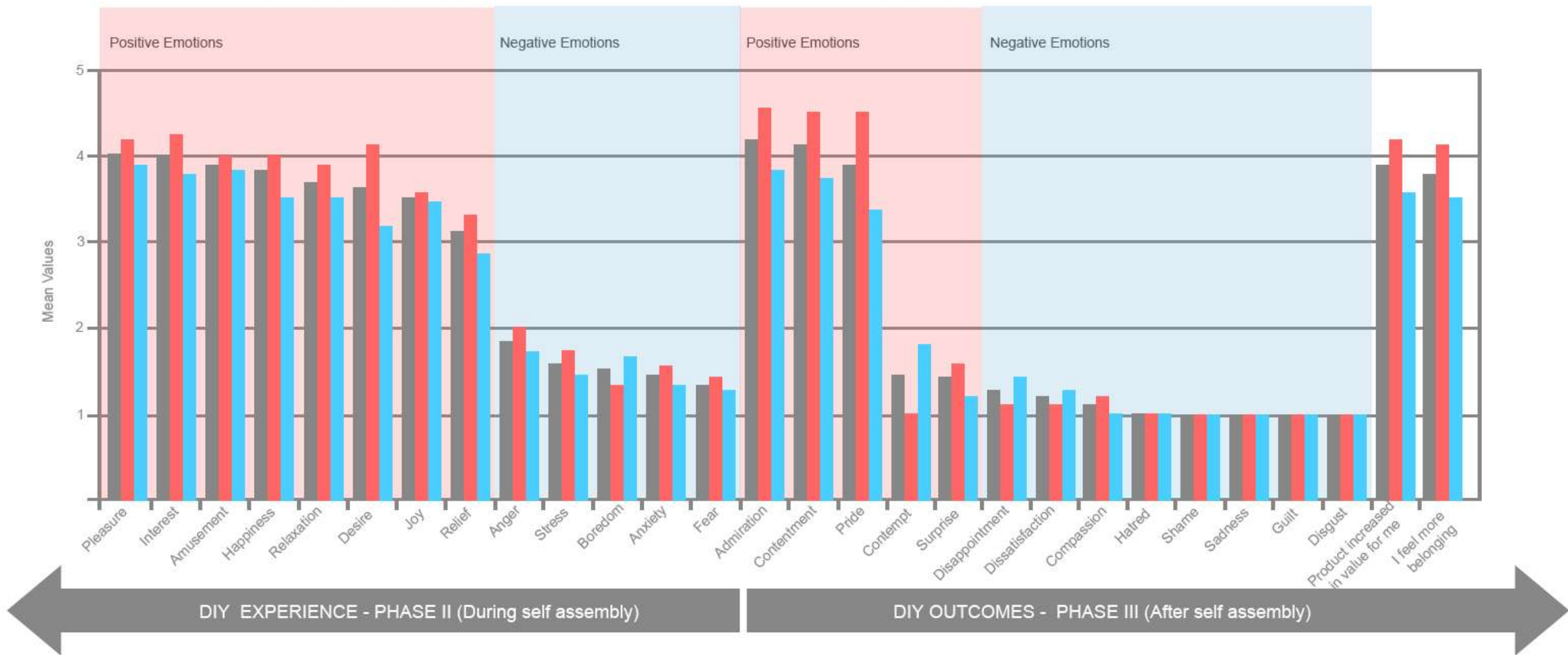**Analysis of Emotions about Self-assembly Products**

Figure A.1: Analysis of Emotions about Self-assembly Products