VALUE ASSIGNMENT IN PURCHASE, USE AND DISUSE: THE CASE OF KITCHEN APPLIANCES

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ABSTRACT:

Creating value for users is one of the central concerns of user-centered design. However, what exactly constitutes user value and how design can contribute to its creation is not well known. Based on an ethnographic study on users' value assignment to kitchen appliances, this paper examines at what point value is formed in user-product interaction. The findings suggest that the traditional marketing view of value as an assessment of monetary worth for the features obtained in the purchase situation is not an adequate projection that design can build on. Instead, users assess value in product in (1) pre-purchase and purchase, (2) use, and (3) dispossession and disuse situations. How users define value in each situation, what product properties become salient in signaling value, and how users' immediate and socio-cultural context plays out in value formation is analyzed. The implications for design practice are also discussed.

1. INTRODUCTION

Creating value for users is a central goal of design. Many have suggested that companies should orient their product strategies towards providing superior user value. For example, according to Kim and

Maugborne (2005), innovating based on superior user value makes competition irrelevant and creates new market space. It is emphasized that design is a key activity when it comes to the creation of products which deliver superior value (Cagan & Vogel 2002). However, despite the centrality of the concept of value for design, user value still remains largely unexplored. One of the key issues here is to understand what mechanisms users themselves deploy in assigning value to products. Assuming that value assignment occurs throughout the product's lifecycle, it is necessary to explore what user value means at different stages of users' interaction with products. In marketing research, a distinction exists between pre-purchase and post-purchase value (Jensen 2001, Parasuraman 1997, Woodruff 1997). The former refers to one's expectations about the value a product is going to deliver, which is formed prior to purchase of a product. Post purchase value, on the other hand, involves value realized throughout the use of a product. Despite such a distinction, the so-called post purchase value has received little research attention, and the theoretical development of the construct of value has been primarily in the areas of pre-purchase and purchase. This paper first reviews value models originating from marketing and consumer research, which view value as an exchange phenomenon. Then, the concept of value in use, dispossession and disuse are examined. How users define value in each situation, what product properties become salient in signaling value, and what drives users to form value are discussed.

2. THE STUDY

This paper is based on an ethnographic study on users' value assignment to kitchen appliances. Participants involved 21 urban families in Turkey and 8 families in the United States with a diverse family structure aged 21 to 62, mostly female. It is important to note however that this is not a cross-cultural study *per se* although such comparison was an important part of the analysis, but rather, the purpose in the inclusion of the American participants was to create a baseline only, and understand if the categorizations generated by the analyses in the primary research site would be consistent with those in the American site.

The primary methods for data collection involved observations, interviews and trace analyses. The observation sessions usually lasted from two to five hours and were followed, sometimes overlapped, by interview. Observations were videotaped whenever permitted. Otherwise, still photos were taken to document the inventory of products, the kitchen, and the informant's activities. All interviews were conducted in the kitchen. The reason is that presence of the products studied would serve as conversation openers and remind participants about their daily practices. Whenever available, spouse, children, and other family members were part of the interviews. All interview sessions were taped and later transcribed. In addition to audio taping the interviews, descriptive and analytic notes on the content of the interviews, or any surrounding activities were taken. Trace analysis was used to infer what happens to a product during past usages.

3. PRE-PURCHASE AND PURCHASE VALUE

A brief review of some consumer value definitions (e.g., Anderson, Jain, and Chintagunta 1993, Gale 1994, Monroe 1990, Naumann 1995, Zeithaml 1988) reveals that the emphasis is on the point of exchange, either by direct referencing to a purchase situation or through the use of terms such as buyer or customer. Here, value is defined in terms of the monetary sacrifice people are willing to make for a product benefit. That is, value equals to benefits divided by price. The assumption is that, at the moment of purchase, people make a rational evaluation and calculation of what is given versus what is taken. If what is taken outweighs what is given, then there is a value for the user and the evaluation is expected to result in a buying decision. What is given involves the cost the consumer pays when making a purchase. Thus, money and price is seen as a fundamental index of value. This is also reflected in the colloquial use of the term to indicate the lowest price or best buy. For example, if people say they "got a good value" in an electronic equipment, that means they purchased it for less than the average price. At McDonalds, a "value meal" is getting more food, such as soda, fries and burger for less money than the total sum of the items if purchased separately.

On the take side of the exchange lie some perceived product benefits. Although quality is often emphasized as a key benefit, it is now better understood that the benefits users get include more than quality (Day & Crask 2000, Holbrook 1999). In Gutman's (1982) means-ends hierarchical representation of value, benefits relate to achievement of aspirations and personal beliefs. According to this model, users actually desire certain product attributes, which they think could be linked to specific consequences products may provide, and which further relate to higher level consequences such as realization of one's values and beliefs. This kind of thinking is in fact a basis for many commercials. For example, product attributes such as blue particles in a detergent are linked to better cleaning power, or spending less time and effort on laundry, and thus being a good mother.

In my own kitchen study, some participants' retrospective accounts support the view that pre-purchase value is motivated by desires, and that a trade-off is made between what they can afford and what is offered in the purchase:

> I want to have a modern kitchen. You know, it should reflect my taste. I have a sense of aesthetic. For example, I wanted an oven with mirror front. They are so sleek! That's why we went to Arcelik. At that time, only Arcelik had them. But when we went to buy one, I had to change my idea because they were so expensive. Why would it be so pricy? Just because it is in fashion? So, instead of buying what I wanted, I bought an affordable oven, what would work in a house with three kids, what would last longer. It all boils down to what you can afford. Same with the cabinets, curtains, furniture… I would have a very different kitchen if it were up to my taste only. (Hale, 38)

Hale actually deployed different criteria in her pre-purchase and purchase value evaluations. The pre-purchase value is strongly based on her desire to communicate a certain image of modernity.

However, at the point of purchase, she had to take into account her expectations about what the product would deliver. According to Spreng, MacKenzie and Olshavsky (1996), desires and expectations cannot be considered as different levels of the same thing only, since they could have a different influence on the value assignment. For example, the expected performance may be poor, but there may be a strong correspondence with a desired situation, which may still result in value for users, or vice versa. For Jensen (2001), desires are present-oriented and somehow stable, whereas expectations are future-oriented and relatively malleable. So, he suggests adopting a model of users' pre-purchase and purchase evaluation which involves both desires and expectations.

Those adopting such a perspective establish a link between pre- and post-purchase value assignment in that, in the former, users actually form expectations about the value a product is going to deliver once they make them part of their lives, and once they obtain the product its value is assessed based on the pre-purchase expectations (e.g., Jensen 2001, Woodruff 1997). In other words, in pre-purchase or purchase, users predict the value the product will deliver once it is obtained and used. This expectation becomes the baseline for evaluating value in the use situation. As it will be discussed in detail in the next section, the kitchen study suggests that experiences with product and the harmonious relationship between product properties and context of use are much stronger indicators of value assignment.

The following conversation between two friends shows how prior experience influences pre-purchase and purchase value formation:

B: Our oven broke. Now I'm thinking what to get. I don't have much space. Countertop ovens are too small. I went and loooked at them, but I'm not quite OK with them. Their pans are too small, you know. Let's say you are gonna make borek: It's not even worth the effort. You'll have to bake it in 3 or 4 sessions. Even with the other ones [conventional ovens], which have that large (shows the size) pans, I make two at a time. But, with this one, you have to make 3 or 4 pans and keep an eye on it all the time. I want something really convenient. Make one pan, put it in, and take it out in, say, 40 minutes. Done. I asked myself, why don't I get a round one, a drum oven, but they say the cake pans don't fit in. Its door is too narrow, the bund cake pans are too high and don't fit in. But when you get a big [conventional] oven, let's say you're gonna bake a cake only, you have to heat up the whole big thing. That's too much energy consumption. And it doesn't matter if you bake a whole big pan or just a tiny cake. And then, you can't bake two things at the same time. They say the smells don't mix up, but I don't buy that. Plus, everything needs a different heat set-up. I mean, it [conventional oven] takes up so much space for baking just one thing. And I don't bake pastries only, by the way, we use the oven for almost all dishes. I even make the cauliflower in the oven. But what happens then is that the oven works all the time. For example, I make meatballs with potatoes in the oven, eggplant, you know, all vegetable dishes. And what I make is mostly in small sizes (shows). And this is not economical. That's why I'm thinking of buying a small oven that could do the same job.

S: Then you definitely need a smaller one.

B: That's why I wanted to buy a drum oven in the first place. It doesn't take up much space, you can move it around, and doesn't need much cleaning.

S: Don't they have newer models? Something with a large door, or opening from the top?

B: The new drum ovens are really nice. Now they have thermostat setting as in a regular oven. You can set up the heat and bake the top and bottom at different temperatures.

S: But it probably consumes the same amount of energy then, no?

B: It's not just the energy. It's also the cleaning. I've had enough with my old one. Clean, clean, clean! It's nothing like that with the drum. You just take out the thing [the resistance] and clean it. But with the regular oven it's not like that. And with the vegetables etc that I cook, the grease is all over. You bake one thing and spend more time on the cleaning than you do for cooking. If you don't clean, then you get these black stains. I've had enough of that. And I don't have space. No. (Bedriye, 43; Sevil, 43)

Bedriye's assessment of purchase value involves a dynamic scenario building about the product in its situation of use. Here the participant constantly builds up scenarios about product alternatives, hypothetically placing them in her own context of use. Then, she mentions her past practice to evaluate how product properties such as size, energy consumption, function, materials etc would perform. Her prior experience with a similar product becomes the grounds for comparing across alternatives. It also makes her scenarios very detailed and helps her consider multiple aspects of the interaction with product such as cleaning, baking a variety of dishes, set up etc. When users do not have prior experience or knowledge concerning product use, then perhaps purchase value would rely more on desires and expectations. In that case, such scenario building would either not be possible or the scenarios would not be that detailed. Note that the active scenario building approach undertaken by users cannot be reduced to what is obtained for the money paid. Scenarios allow for multidimensional, complex and context-specific evaluations.

It is evident from the examples above that the sacrifice could be non monetary too. In a study on the assignment of value to fruit beverages, Zeithaml (1988) points out that use-related, non-monetary issues such as time and effort spent were visible in users' assessment of product value in purchase. In both examples above, we see a trade-off, which involves more than money or time/energy spent for the benefits obtained. In these cases, a trade-off is made among different potential benefits or types of expected value. In the first example, the participant sacrifices the social significance value that could have been obtained by purchasing a mirrored-front oven, and which would also showcase her taste. In the second example, convenience value is compared to economy of use, compatibility to space, and fitness to one's cooking behaviors.

Here, specific product properties act as cues to signal their potential value to users. Zeithaml (1988) distinguishes between *intrinsic* or *extrinsic* cues or signals. Intrinsic cues are related to physical configuration of the product. Extrinsic cues, on the other hand, are product-related but not part of the product, such as brand name, price, and level of advertising. Data from the kitchen study shows that users rely on extrinsic cues as an indicator of benefits such as quality, reliability, and durability, whereas product properties such as form, color, size, materials, and texture etc are used as signs of convenience, safety, social significance, and emotional value.

For Turkish participants of my own kitchen study, the purchase value was not necessarily related to the product itself. The benefit of deciding to buy an appliance over another was perceived as a means of maintaining one's social network. Many chose to buy kitchen appliances from dealers they already knew and are friends with, as in the following example. This form of shopping repeatedly occurred in many of the interviews in Turkey:

> We bought this Bosch, although I liked Arçelik's model better. [Why did you buy Bosch then?]. Well, friendship. A friend of ours opened a Bosch dealership. He is a good friend. So, we chose to buy from him. [Meryem, 49, Retired Teacher]

4. VALUE IN USE

Design is mainly concerned with the value of a product after it has been purchased; that is, in use. The purpose of design is twofold here: (1) to make the product chosen, and (2) to create value and a meaningful relationship with its user throughout the product's lifecycle. But the concept of value in use has not received much attention in research. Implicit in the few definitions of value in business research is the concept of value-in-use (e.g., Day & Crask 2000, Holbrook 1999, Woodruff 1997) where value of objects is realized through the ownership and use of a product. The value in use is also often called post-purchase or received value to distinguish it from value in purchase, which is only an expectation about the actual value of a product. For Holbrook (1999), "value resides *not* in the product purchased, *not* in the brand chosen, *not* in the object possessed, but rather in the *consumption experience(s)* derived therefrom" [italics in original] (p. 8). Therefore, during fieldwork and analysis of data from the kitchen study, my emphasis was on users' experiences with the product, observed consequences provided by the interaction with the product, and participants' interpretations of what constituted value.

The data suggests the existence of four major categories of user value present in user-product interaction. These include (1) *utility value*, (2) *social significance value*, (3) *emotional value,* and (4) *spiritual value.* Utility value refers to the utilitarian consequences of the product, such as enabling the accomplishment of a physical or cognitive task. Utility value is further divided into economy, quality, and convenience values, where convenience is defined in terms of accessibility, appropriateness, avoidance of unpleasantness, or compatibility. Social significance value refers to the socially oriented benefits attained through ownership of and experience with a product. These include attainment of social prestige and construction and maintenance of one's identity. Emotional value refers to the affective benefits of the product for people who interact with it such as pleasure and fun. And finally, spiritual value refers to the spiritual benefits such as good luck and sacredness enabled by the product.

In responding to the question of *what* constituted the source of value for them, participants often indicated specific product attributes. This means, on the face of it, they define the source of value as the product properties themselves. In responding to the question of *how* a specific product property constituted the source of value, they often assumed the context of product use:

> The frost-free feature of this freezer is the most important to me. I put vegetables, butter, and meat there. You know, we are the oldest in the family and always have visitors. So, I keep treats or something. We don't eat much, but when you go shopping you can't say 'give me half kilogram of tomatoes', people will laugh at you. Our relatives send us all these pears from the countryside. These will get all wasted before we eat them. So I put my extras in there. And it's not like in the old times now. In an apartment like this one, we don't have enough space for jars. So, the freezer took over most of the canning job. [Emine, 52]

Emine starts by pointing to a specific product property, i.e., frost-free freezer, but soon contextualizes it, and exemplifies how that property fits into her own behaviors, daily habits, her lifestyle, and her physical environment. In other words, in assigning value, she takes for granted how product properties respond to her own context. So, the user value arises through experience with a product where specific product properties are matched and compared against the requirements of the user's context. This, in turn, influences user-product interaction by imposing certain conditions, which may enhance or hinder people's experiences with products and their assignment of value.

In an attempt to uncover the role of product and contextual elements in the construction of value in my own kitchen study, I tracked the notion of value to product properties and mapped them with the perceived value of the refrigerator (Figures 1 through 5). The order of maps follows users' priority in assigning value to product properties. The difference between the most valued product property in the Turkish and American data shows the contextual nature of the user value once again. Note, however, that, in these maps, product properties are matched against multiple contextual elements, not only one. For example, the most valued property of a refrigerator in the Turkish data is the frost-free feature of the freezer. This property supports many different elements of the context ranging from specific shopping and cooking habits to the ways in which users interact with their guests, and leads to value categories which fall under three major categories of utility, social significance, and emotional values. Thus, the more valued the product property, the more local elements it assumes, which eventually leads to more diverse categories of user value.

What context elements influence value assignment? Specifically, a set of common behaviors, or ways of doing things, systems with which products interface, such as infrastructure, organization of space, and institutional and geographical factors, and socially and culturally shared meanings, such as common symbols, rituals, and traditions can be significant in shaping user value. Therefore, the same product may have a different value for users in different contexts. For example, cooking, eating and shopping behaviors are closely related to the value assignment of kitchen appliances. The local market serves as

the primary venue of weekly shopping for most Turkish participants, which they call main shopping. Usually, this involves buying varieties of seasonal vegetables and fruits. Additional fresh ingredients are purchased from the local grocery stores or street vendors almost on a daily basis. Milk for making yogurt is delivered to the door, usually once or twice a week, by a 'trusted' farmer. One could thus say that the food circulation in the refrigerator occurs both on a daily and weekly basis and consist mostly of fresh produce. Such consumption requires storage space that can accommodate lots of fresh ingredients. Making yogurt at home, as well as cooking a day in advance, and the storage of that food in cooking pots means that there are at least two heavy pots in the refrigerator almost at any time. That, in turn, brings forward product properties like scratch resistance of the shelf surfaces and the weight capacity.
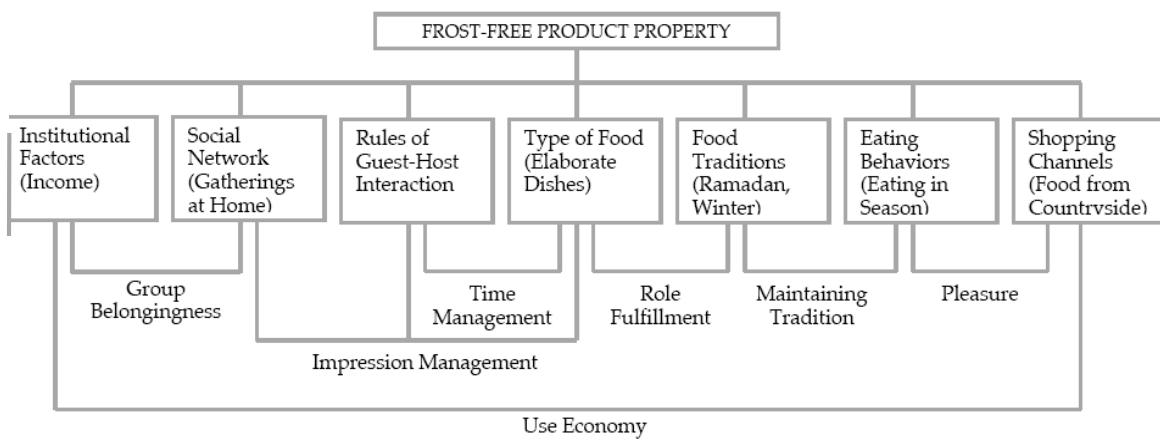
Figure 1. Value mapping for frost-free as a product property in the Turkish data.
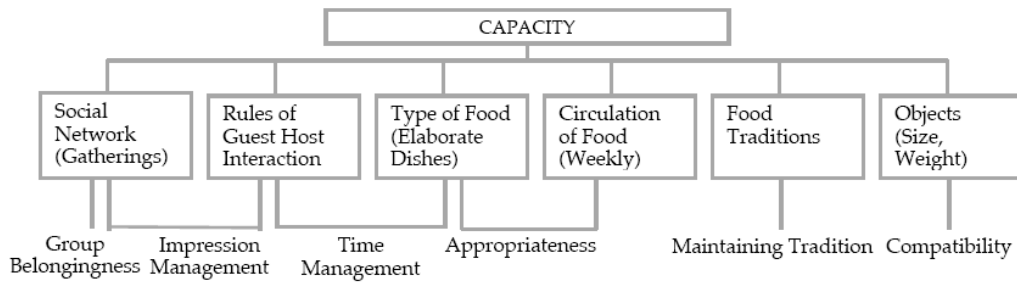
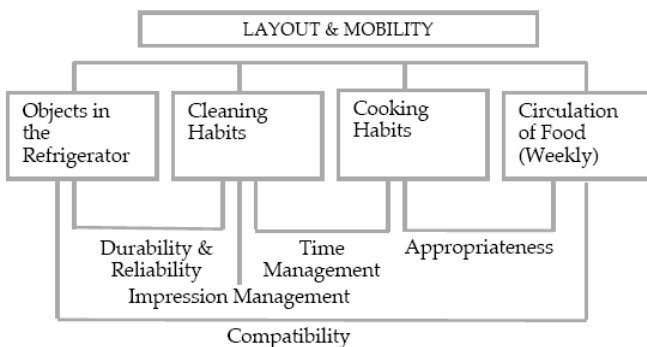**Figure 2.** Value mapping for capacity as a product property in the Turkish data.

Figure 3. Value mapping for layout and mobility of parts as product properties in the Turkish data.
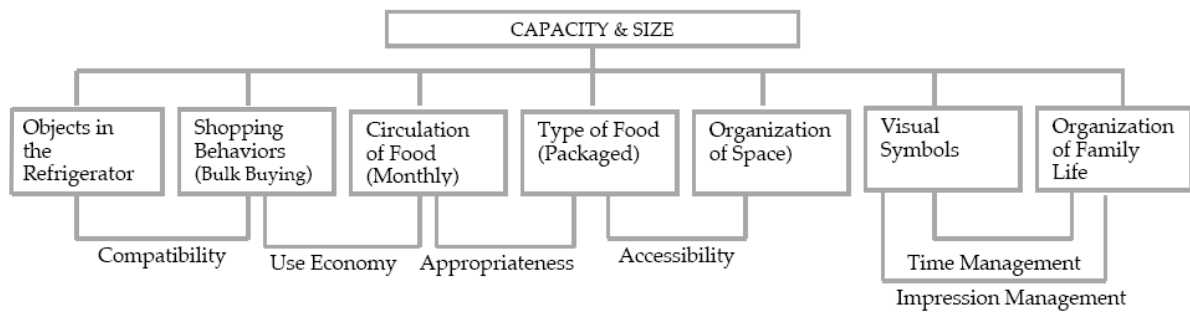
Figure 4. Value mapping for capacity and size as product properties in the American Data.
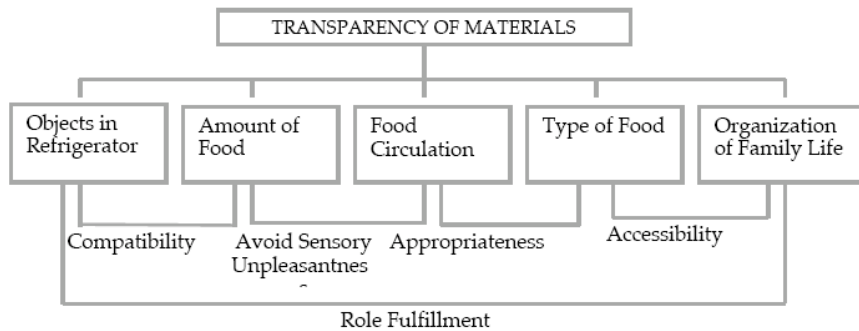

Figure 5. Value mapping for transparency of materials as a product property in the American Data

Unlike the frequent shopping patterns of Turkish participants, the main shopping for the American participants consisted of buying groceries on a monthly basis in bulk, and stocking them at home. The emergence of wholesale retailers like *Sam's Club* and *CostCo* also encourages such shopping patterns. As a result, circulation of food is less frequent, and the level of fullness and clutter in the refrigerator is much higher, which perhaps explains why transparency of parts in the refrigerator, which allow locating of forgotten items frequently came up as an important feature. Also, six of the eight American participants had a second, and some even a third freezer or refrigerator in their homes, which is used to support this practice.

Cooking and eating behaviors also influence the social prestige and identity value of refrigerator. For example, both in the American and the Turkish data, cooking and eating practices were projected as being central to family identity. Women from both countries emphasized the importance of eating together and eating proper meals in the making of family. Thus, all kitchen appliances were potentially seen as a means of maintaining family identity. For instance, Sally's husband works late, and they usually have dinner of frozen food at separate times. But, once a week, they have a *pizza night* where everybody participates in making, eating, and cleaning: "It's what makes us family," she comments, "I want my kids to have that sense of family." She keeps both frozen pizzas and pizza dough in the freezer for that occasion: "You know, if we have more time, we cook it from scratch. If I feel tired, we just open a box and microwave it. Whatever it takes!"

Traditions and social rituals too were observed to influence utility, social significance, and emotional value. Many Turkish participants brought up the perceived importance of having a large social network. Spending face-to-face social time with other people is a key activity to ensure the maintenance of the social network. Gatherings at home are frequent, and can span from very informal, unexpected guest visits to organized family and friend gatherings, religious events etc. The script of each ritual varies depending on whether the guest was invited or not, the time of the visit, and relationship to the host, but all rituals do involve food treatment. Even when close friends drop by without any notice, they have to be treated with at least tea and home-made pastries. Unexpected visits are the norm rather than the exception. Meryem, like many other Turkish participants, keeps extra food and plenty of pastries in her freezer just for that reason. She and her husband Sami explain:

> Sami: Well, we are a crowded family. Someone can show up any minute. You know there are no appointments around here. The doorbell can ring at any time: 'Helloo, we came to visit you'.
> Meryem: And you can't say 'I ran out of something, let me go and get some'. Wouldn't be nice according to our customs. It's like you disdain people, you know… 'Give me a minute, I'll go get some sugar or cookies' You would only shame yourself as a hostess. And people will talk behind your back. Wouldn't be nice. You don't want that!
> Sami: And see, our freezer. Vegetables, meat, pastry…

The importance given to guests and the need to serve home-made treats influences in many ways how *convenience value* is defined. For example, the expectation to serve food even to unexpected guests drives provisioning of food in the form of pastries or semi-prepared items, which, in turn, defines the time management and accessibility value. In fact, any product property that assists the proper execution of the social ritual involving entertaining guests is highly valued.

When value-in-use is compared to pre-purchase and purchase value several differences stand out. For example, while in pre-purchase situation the evaluation is made across product alternatives, here, participants did not frequently mention alternative products. But the awareness of alternatives seemed to influence what they considered to be of value.

In pre-purchase and purchase value assignment, participants reportedly paid more attention to specific product properties and their immediate consequences (e.g., large oven=higher energy consumption). In use value assignment, however, they took into account what tasks products enable them to do at a more abstract level. That is true even when it comes to the creation of social significance value through impression management. People use goods as markers of their relative position in the social nexus (Bourdieu 1984). Mere possession of a trendy object is often seen as sufficient to communicate a certain image. Sally, whose kitchen is equipped with a stainless steel refrigerator and built-in appliances, points to the main benefit of these products for her husband:

> My Mr. has an image about where he is supposed to be with his life and his job. This [pointing to the kitchen] is representation of this image he has… Everything that is out has to make a statement: I worked hard for my family. That is why my toaster oven disappeared and why we got this stainless steel refrigerator.

Sally's husband knows what certain product attributes such as stainless steel surface communicate to their visitors about what he can afford, and what his tastes are etcetera. Apparently, any appliance that poses a potential threat to the image he wishes to create, such as his wife's toaster oven, has been moved out of sight. So her husband's choice to buy and display certain appliances but hide others is *strategic* in the simplest sense of the term, and serves the family to accumulate what Bourdieu (1984) calls *symbolic capital,* "an image of respectability and honorability" that easily converts the beneficiary into a "local *notable*" [italics in original] (p. 291). Yet, the value of appliances as a means of achieving distinction from others through projection of an image one wishes to create, or through what Goffman (1959) calls *impression management,* is not related only to the static ownership of products and use of specific product properties as labels, but also to how they are being *utilized* and what ends are achieved through their *use.*

For example, a 42-year-old teacher, Gül, explains that she allocates a whole weekend day in preparing and freezing ready to cook home-made pastries, which neither she nor her husband eats, but are for "just in case someone drops by". She proudly describes how she is able to prepare a rich side dish until the tea is ready whenever she has unexpected guests, and how *pleased* her guests are. So, by preparing pastries in advance she both avoids the rush when her guests arrive, and gains their recognition and admiration. The image she projects is that of a handy housewife, who can whip up a rich treat in short notice, and also spends time with her guests showing attention and respect. While such an impression is desirable, most of the comments were along these lines:

> It's great for unexpected guests. You don't worry about what you are going to serve them, whether you have the necessary ingredients or whether you can prepare things on time. It's ready. And you know, you have to treat your guests (Gul, 42).

Here, the value is closely related to the fear of losing face by being caught unprepared to offer a *decent* treat to unexpected guests, and thus, failing to fulfill her projected role of as a skillful housewife.

Findings of the kitchen study also suggest that product properties used to signal the same type of value in pre-purchase and use may differ. For example, in pre-purchase, brand is considered as one of the most important signs for quality, reliability and durability. However, in use, the actual performance and fit to user behavior act as cues for value. When describing what constitutes quality, durability and reliability of their refrigerator, the criteria Turkish participants reported were the ability of the shelf to carry a big watermelon side by side with a seven to eight kg yogurt pot, prints on controls not be erased due to cleaning, the ability to keep vegetables crisp about a week, etc. Gardial, Clemons, Woodruff, Schumann, and Burns (1994) too report that very few of the criteria used in the pre-purchase are in fact recalled for post-purchase evaluation. Zeithaml (1988) similarly found out that at

the point of purchase low price, sale or coupons are much more important, but in use, what determines value is whether the beverage is easy to prepare, whether children would drink it, whether some of the beverage is wasted, and whether children appreciated their mother for buying the drink.

Parasuraman (1997) hypothesizes that value would also vary over time with the altering level of experience users have with a product. As users move from being what he calls first-time to short-term and long-term users, their value assessment criteria may change and become more abstract. Users' prior experience and knowledge of a product might be especially relevant factors in their value assessment of products with high learning curve such as information products.

5. VALUE IN DISPOSSESION AND DISUSE

Sometimes the conscious act of not owning or not using a product has a value for the user too. For example, Cathy once proudly told me that she always cooks at home, but does not possess and use many gadgets: "Making food for my family is a pleasure. Chopping vegetables is a pleasure, it is a dignifying act, not a chore," she commented. Here we see a clash between convenience and social significance values. For Cathy, the convenience some small appliances provide takes away the sense of fulfilling the role of being a good mother and caregiver. It is for the very same reason that participants who baked bread at home often kneaded the dough manually. Many Turkish participants also had their food processors on their countertop, but still continued to chop onions and other vegetables on a cutting board claiming that no chopper can give them the exact size or the uniformity they want. Moreover, the convenience the food processor provided also caused inconvenience by producing extra items that need to be hand washed.

Other participants who owned many small appliances preferred not to display them. They perceived it as an overt sign of upward mobility aspiration, which belongs to members of lower social classes and they did not want to be associated with them.

Many Turkish participants reported that they considered how product would be disposed of during its acquisition. For example, for a refrigerator, the expected lifetime would be 10 to 20 years. It is also expected that it will be in working condition and exchanged to purchase the replacement through "bring the old one, get the new one in discount", be moved to the second house, or given to one's son or daughter leaving for college etc.

6. CONCLUSION

For design purposes, the definition of value as the benefits obtained for the price sacrificed is thus narrow and incomplete. User value is a dynamic construct constantly changing at different stages of user-product interaction. Users may assign value at different points such as when making a purchase decision or when using a product, and even when making a deliberate choice of not owning or not using a product. Each stage centers on different value assignment mechanisms and tasks. Specifically, users may perceive value differently at the time of purchase than they do during or after use. From the perspective of design, this could mean that different cues may be required to communicate value at different stages of user-product interaction. Purchase means choice, and this requires users to distinguish between product alternatives. The present study shows that, in addition to desires and expectations, past experiences and hypothetical use scenarios too influence the perceptions of value in pre-purchase and purchase stages. In contrast to purchase, users are more concerned with the experiences provided by product in specific use situations. In other words, value-in-use is more closely tied with the realities of users' context. At this stage, value is highly contextual. That is why designers need to recognize that, for users, products are of value only within their contexts of use and daily practices, rituals, gender roles and identities, beliefs, traditional ways of performing tasks, as well as the physical setting. The challenge for designers then lies in developing objects' capacity for value through a heightened understanding of users' abovementioned characteristics. A user-centered approach where user research and testing are an integral part of product development is therefore essential. Yet, such approach needs to rest on a well-established theory of value in design. Future research therefore needs to orient itself to building a better understanding of the dynamics of value assignment from which methods and tools that support user-centered design practice could be derived.

REFERENCES:

Anderson J. C., Dipak C. J., and. Chintagunta P. K. (1993) Customer Value Assessment in Business Markets: A State-of-Practice Study, Journal of Business to Business Marketing 1 (1): 3-30.

Bourdieu, P. (1984). Distinction: A Social Critique of Judgment of Taste (R. Nice, Trans.). Cambridge, MA: Harvard University Press.

Cagan, J., & Vogel, C. M. (2002). Creating Breakthrough Products: Innovation from Product Planning to Program Approval. Upper Saddle River, NJ: Prentice Hall.

Day, & Crask, M. R. (2000). Value Assesement: The Antecedent of Customer Satisfaction. Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 13, 52-60.

Day, G. S. (1994). Capabilities of Market-Driven Organizations. Journal of Marketing, 58, 37-52.

Gale, B. T. (1994). Managing Customer Value. New York, NY: Free Press.

Gardial, S. F., Clemons, D. S., Woodruff, R. B., Schumann, D. W., & Burns, M. J. (1994). Comparing Consumer's Recall on Prepurchase and Postpurchase Product Evaluation Experiences. The Journal of Consumer Research, 20(4), 548-560.

Goffman, E. (1959) The Presentation of Self in Everyday Life. New York, NY: Anchor Books.

Gutman, J. (1982). A Means-End Chain Model Based on Consumer Categorization Processes. Journal of Marketing, 46, 60-72.

Holbrook, M. (Ed.). (1999). Consumer Value: A Framework for Analysis and Research. New York, NY: Routledge.

Jensen, H. R. (2001). Antecedents and Consequences of Consumer Value Assessments: Implications for Marketing Strategy and Future Research. Journal of Retailing and Consumer Services, 8, 299-310.

Kim, W. C., & Mauborgne, R. A. (2005). Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant Boston, MA: Harvard Business School Press

Kim, W. C., & Mauborgne, R. A. (1999). Creating New Market Space. Harvard Business Review, 77(1), 83-93.

Monroe, K. B.(1990). Pricing: Making Profitable Decisions. New York, NY: McGraw-Hill.

Naumann, E. (1995). Creating Customer Value. Cincinnati, OH: Thompson Executive Press.

Parasuraman, A. (1997). Reflections on Gaining Competitive Advantage through Customer Value. Academy of Marketing Science Journal, 25, 154-161.

Spreng, R. A., MacKenzie, S. B., & Olshavsky, R. W. (1996). A Reexamination of the Determinants of Consumer Satisfaction. Journal of Marketing, 60(July), 15-32.

Woodruff, R. B. (1997). Customer Value: The Next Source of Competitive Advantage. Journal of Academy of Marketing Science, 25, 139-153.

Zeithaml, V. A. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. Journal of Marketing, 52, 2-22.