

When Sharing is (Almost and/or Possibly) Better than Owning: a Case Study on a “Full Service” Collective Laundry

Quando o Compartilhamento é (Quase e/ou Possivelmente) Melhor que a Posse: um Estudo de Caso em um “Serviço Completo” de Lavanderia Coletiva

Rosana Aparecida Vasques¹, Maristela Mitsuko Ono²

¹Doutora em Arquitetura e Urbanismo, Professora da Universidade Federal do Paraná, Curitiba, Brasil; ² Universidade Tecnológica Federal do Paraná, Curitiba, Brasil.

Correspondência: Rosana Aparecida Vasques. Universidade Federal do Paraná, Endereço: Rua General Carneiro, 460- 80. Andar, Centro, CEP.: 80060-150, Curitiba, PR, Brasil. Tel: 55 (41) 3360-5360. E-mail: ravasques@gmail.com

Recebido: 02 de Fevereiro de 2016 Aceito: 15 de Fevereiro de 2016 Publicado: 10 de Maio de 2016

DOI: <http://dx.doi.org/10.21714/1679-18272016v14Esp.p97-105>

Resumo

Serviços para o compartilhamento têm emergido como uma forma colaborativa de consumo e podem promover benefícios ambientais e sociais. No entanto, alguns estudos têm apontado que o compartilhamento ao invés da posse nem sempre é bem aceito e podem apresentar alguns problemas em relação a questões culturais. Este artigo apresenta um estudo de caso sobre um "serviço completo" de lavanderia coletiva na cidade de Curitiba (Região Sul do Brasil), visando identificar barreiras e facilitadores socioculturais para esta categoria de serviço. A partir de abordagem metodológica interpretativa, a pesquisa de campo abrange entrevistas e questionários com moradores e com a prestadora de serviços, além de observações de campo e análise do fluxo emocional do cliente no uso do serviço por meio da ferramenta Blueprint+. Os resultados mostram que os usuários, em geral, estão satisfeitos com o serviço, apesar de manterem a preferência para a compra de suas próprias máquinas de lavar roupas e terem algumas preocupações em relação à contaminação e a privacidade. A possibilidade de economizar dinheiro é considerada um benefício mais importante para os usuários do que cooperar em cuidar do meio ambiente. Por outro lado, as principais barreiras referem-se ao preço do serviço e a flexibilidade para lavar a roupa sempre que os usuários querem. Assim, o estudo sugere que serviços voltados ao compartilhamento de máquinas de lavar roupas e secadoras entre vizinhos parecem ter maior aceitação quando promovem conveniência e conforto por um baixo custo.

Palavras-chave: serviços para o compartilhamento; lavanderia coletiva; sustentabilidade; cultura; interação social; design de serviços.

Abstract

Services for sharing are emerging as a collaborative way of consumption that can promote environmental and social benefits. Nonetheless, studies indicate that sharing rather than owning products is not always well accepted and may present some cultural related issues. This paper presents a case study on a “full service” collective laundry in the city of Curitiba (in the Brazilian southern region), and aims at identifying socio-cultural drivers and barriers for this category of service. Adopting an interpretive methodology, the research fieldwork covers interviews and questionnaires with residents and the service provider, as well as field observations and analysis of the customers’ emotional flow using the Blueprint+ service tool. Results show that users are satisfied in general with the service in spite of keeping the preference for buying their own washing machines and having some concerns about contamination and privacy. The possibility of saving money is considered a more important benefit for users than cooperating with each other on taking care of the environment. On the other hand, the main barriers presented refer to service price and flexibility to wash clothes whenever users want. Thus, the study suggests that services for shared usage of washing machines and dryers among neighbors seem to be better accepted when they promote convenience and comfort for a low price.

Keywords: services for sharing; collective laundry; sustainability; culture; social interaction; service design

Esta obra está licenciada sob uma Licença Creative Commons Attribution 3.0.

1. Introduction

Sharing rather than owning products could stimulate changes in mainstream lifestyle as well as fostering the production of more durable goods. As a consequence of this, sharing might reduce unsustainable practices of planned obsolescence. (MANZINI;VEZZOLI, 2002; TUKKER, 2004)

Despite environmental advantages such as the ones described by Roy (2000) and Mont (2004), there are barriers in adopting shared use of products and services, mainly related to the preference for ownership (YÜKSEL; ER, 2010; VASQUES; ONO, 2010; VASQUES, 2011).

Even in countries where communal laundries used to be moderately well accepted, there is a reduction in using these services which are eventually replaced by the ownership of washing machines. For instance, the collective laundries were the main locations to wash clothes, in Germany, after the Second World War. Nowadays, almost 90% of the families, however, have their own washing machine (SCHRADER, 1999; MONT, 2004).

On the other hand, sharing appliances as washing machines is a common practice among Brazilian low income neighbors and relatives as most of them cannot afford these products (CHELLES, 2008). Services for sharing, such as the ones mentioned, are known as “relational services”, as described by Cipolla; Manzini (2009). This kind of services requests intensive interpersonal interactions, trust and favors encounters among multiple users. Thus, “relational services” are considered more sustainable than “standard services” or “full services” because they present the possibility of empowerment of the social fabric, besides the environmental advantages. However, as ownership is strongly related to social status in the Brazilian context, the desire of purchasing a washing machine is also common among the poorest.

This paper therefore presents a case study on a “full service” collective laundry in the city of Curitiba (in the Brazilian southern region) that could be considered a service between the most sustainable solution in terms of its social dimension (“relational services”, i.e. products that are shared among neighbors without providing the laundry service) and the ownership of products. This study is part of a Master degree research that covers five services for shared laundry in residential buildings in Curitiba, aiming to identify socio-cultural drivers and barriers present in these different services.

2. Research Methods and Techniques

The research follows a predominantly qualitative and interpretive approach (GEERTZ, 1989), considering that its main objective is to investigate cultural factors that might influence the service acceptance besides the ownership. By using this approach, we emphasize the interpretation of both the social meanings and the interactions associated with the service. Although quantitative data was also obtained, it is used to complement information from qualitative techniques, without intending to measure data or to confirm an initial hypothesis (MOREIRA; CALLEFE, 2006).

The research tools used include semi-structured interviews, questionnaires, and observations, designed to evaluate the service interaction, as well as to explore cultural factors that could influence the costumers’ emotional flow when sharing washing machines. The general analysis strategy adopted in this research is the triangulation of information (FLICK, 2004) and all information was summarized in the Service Blueprint + tool (POLAINE et al., 2009).

2.1 Interview and questionnaire

The interviews have five main topics, namely:

- Participants’ profile.
- Laundry habits and cultural factors for doing the laundry together.
- Product and service interaction.
- Social interaction in the collective laundry.
- Interviewees’ opinion about sharing.

The research questionnaire covers more quantitative information that complements the data from the interview. The questions consist of options to be placed in order of preference for different models of doing the laundry (ownership, rent or share), and a list of advantages and disadvantages for using a collective laundry, which are based on Schrader (1999) and Vasques et al. (2009). There are also questions about characteristics of washing machines, how often the interviewees do their laundry and how many kilos are washed by week.

2.2 Participants

Five residents from the Solar da Serra building had participated in the research. Fernanda, João Vicente and Vítor had moved to Curitiba because of their undergraduate studies. Leila is from Mozambique and was living in Curitiba during her specialization and master course in dentistry that are not available in her home country. Talita is a flight attendant and lives in São Paulo, but her boyfriend lives in the building and she uses the service while she is in the city. Only Sônia, who is part of the service staff, is from Curitiba. The profile of the participants is described in the Table 1.

Participant	Age	Occupation	Shares the apartment with...	How long in the building?	Owner or tenant?
Fernanda	20	Student	A friend	11 months	Tenant
João Vicente	20	Student	A friend	18 months	Tenant
Leila	23	Dentist	A friend	12 months	Tenant
Talita	22	Flight attendant	Her boyfriend, when she is in Curitiba.	16 months	Tenant
Vítor	21	Student	Does not share	12 months	Tenant
Sônia	—	Service Provider / staff	—	12 months (working)	—

Table 1: Participant's Profile – Solar da Serra Building

2.3 Observations

Observations took place in the collective laundry during one month, in different periods of the day (morning or afternoon) as well as during the week and on weekend days. Most of the interviews were conducted with people who we met during the observational period as they become interested on the research. Others were invited by Sônia, when they visited the place to leave or pick up their clothes and the researcher was not there.

2.4 Service Blueprint

Traditional blueprints used in disciplines as architecture, product design and engineering are a tool for a project visualization and/or implementation. In service design, it is used for representing all interactions and touch points that show how a service works. The Blueprint+ advantage is the visualization of the motivational and emotional flow throughout the usage of the service (POULAIN et al., 2009).

3. Main results and discussion

Results are presented and discussed below, following the topics from the interview and questionnaire.

3.1 Previous expectations

For most of the participants on the research, the collective laundry did not influence their choice for renting the apartment. The expectation was positive when they started to use the service and did not change until the moment of the interviews. Only Fernanda pointed out some difficulties regarding the opening hours. For her, this is the main inconvenience of the service

I was surprised to have a collective laundry in the building. Typically, it is outside, right? I found it very interesting; really cool [...] It is always good. The workers are excellent! All was good. (Leila).

It was positive. Very positive (emphasizes). Due to not having much free time, you know, it is so comfortable when you have a laundry room in the building. It helps a lot. It is much better than when you need to get out and take your clothes to Laundromats. And the quality is good (nods confirming). The clothes are washed thoroughly. It is quite reliable, so perfect. (Vitor)

What I did not like is the limit of period to leave and take the clothes (...). Sometimes, I would like to arrive at home and wash my white clothes (she works in a hospital), after on duty....So, I don't like it because I can't do it at night. I have to wait for the opening hours to do it [...] I have to be smart and not to lose the delivery time. I need to find a way to deliver them. Or ask the girl who lives with me to leave them, otherwise I'll lose the opening time. It opens at 7am, but at this time, I'm far away from home... And I should pick up the clothes before 4pm, but this is also hard for me. (Fernanda).

3.2 Washing habits and cultural factors for doing the laundry

The process of washing the clothes follows the personal classificatory system of Sônia, who does the laundry as if she was washing her own clothes. This system is similar to the housewives surveyed by Barbosa (2006), in which a peculiar pollution criterion requires washing clothes separately according to several categories.

I separate the clothes. Linen is linen. And dark clothes go with dark clothes. Then some pieces need to be hand washed, right? If it's special, you know? Dish towel with dish towel. I do not like to mix the clothes. Even in my house, I separate them. I do it as if I were washing my own clothes, you know? As if I were taking care of my stuff, I'll take care of the others things. (Sonia)

This classification system applied by Sonia meets the needs of the residents, since the main reason for washing their clothes is how clean they are.

When talking about the process, Leila highlighted her confidence in the way the service is performed while Vitor emphasized the care within the process and the good smell of the delivered clothes.

Sônia also explained that underwear clothes should not be sent to the collective laundry, according to the service rules. However, occasionally some of them are sent together with the other clothes, as well as socks that should be paid by unit. In these cases, she washes everything together, making the rules flexible.

Sometimes it comes mixed in with other clothes, you know? But it is not allowed. However, occasionally, some come together, and then we wash them, right? I'm not going to pick up dirty clothes and put them in a small bag and then send them back, right? So, we wash them. But the correct action is to not send us underwear clothes... And socks are normally charged by the pair. But they come together and we wash them together with the other clothes. (Sônia).

João and Leila explain that underwear clothes are washed in the tank placed next to the kitchen (**Erro! Fonte de referência não encontrada.**), following the habit that they already had before moving to the building. Fernanda prefers to wash these clothes in the shower or in the tank, due to hygiene issues. Talita, however, prefers to wash her underwear clothes in her apartment, in São Paulo, where she has her own washing machine.

It is a habit. We always do (wash) our underwear clothes. Since we were small, like that. Our mothers always teach us: “wash your underwear clothes” (Leila)

Actually, I live in São Paulo, so I take them and wash there. Or when he (her boyfriend) goes (to São Paulo), he takes them and I wash them there. I do not wash underwear clothes here. [Rosana: Do you have your own washing machine in São Paulo?] I have a Samsung “wash and dry” machine. It does everything! (Talita).

I just don't wash underwear clothes (here). I wash them at home [...] I think it is disgusting. [Rosana: Is this a question of privacy?] Yes... No. I guess it isn't privacy, because the collective laundry isn't a place where you go inside and everything is exposed. But it's collective, and then they wash one, another... I prefer to wash mine at home. They dry quickly. I don't need to stay waiting for two or three days to pick them up. [Rosana: Where do you wash these clothes?] In the shower or in the tank, it depends on my mood. (Fernanda)

Pic. 1: Apartments with two rooms have a small tank in the kitchen.



Vitor, on the other hand, does not wash coats and sweaters in the laundry, as he considers these clothes more delicate and because the cost for washing them in the collective laundry is very high. So he takes the clothes to be washed at his aunt's home who also lives in Curitiba.

According to the participants, the average amount of clothes they sent to the collective laundry is 4 to 6 kg every week. Sonia also said that the weight of the packages hardly reaches 10 kg.

The frequency of sending clothes to the laundry is once a week or fortnightly. As they are not in charge of the washing process, Brazilian cultural habits like watching the clothes being washed or adding pieces during the

washing process (ONO, 2004), were not indicated in the questionnaire.

3.3 Product and service interaction

Sonia uses the machines to wash almost all clothes, unless the resident requests them to be hand washed or when she knows that the fabric could be damaged in the washing machine. However, she gives priority to sun drying, thus using the dryer just to finish the process and to "soften" the clothes.

For her, the machines are easy to use and the result is similar in old and new washing machines. However, she pointed out that the machine purchased recently has more programs, but many are not used because of the kind of clothes washed and because they are more time-consuming.

The average time for returning the clothes was three days. This is not considered a barrier for using the service, mainly because there is some flexibility for this rule. When a resident need to wash his/her clothes urgently, Sonia gives preference to wash their clothes before those from another who had requested the service first but does not have urgency on the delivery.

[The period] is suitable due to the number of people who use it. I guess it is not few people. In a kitchenette, hardly any person will have a washing machine at home. So, it is appropriate for the comfort and convenience ... Usually the person wants to pick up at the same day, right? But, yes, I think this time period is cool, because we live in a building with lots of people. (Talita).

However, the opening hours cause dissatisfaction with the service in some residents, who have problems to leave and to pick up their clothes when the laundry is open, as mentioned before.

3.4 Social interaction

Regarding the possibility of the shared system promoting meetings among neighbors, from the point of view of the respondents, this system does not encourage social interaction since they only go to the laundry room to leave and collect the clothes, without staying in the place. The dialogue between the residents, according to Sonia, only happens when they already know each other. The friendship with the employee, however, became closer, as pointed out by Leila and Sonia.

They meet each other. There are some that live in the same floor, and then they come together or they meet here and then go back talking. But when they don't live in the same floor, they don't talk. [And with you?] Ah, some of them talk with us. Others just come and say: "good morning", "goodbye", "thank you". There are some that talk. We know very well some of them, right? But I'm friendly with everybody. (Sônia).

You are the first one that I met (laughs). I had never met people from the building, so, I cannot answer you. [...] I don't know how it works for the others. For me, it is not important, because I stay here few days, I use it (the service) few days. (Talita).

No. It does not make them closer. It's like a meeting in the lift. A lift in Curitiba, right? You know... (Laughs) (Vitor).

I don't often meet my neighbors in the collective laundry. But, also, I don't believe that... that it favors a kind of socializing. I think it doesn't. It's just everybody going and leaving their clothes and after that going back to pick up them. If we cross each other then we say hello. But it doesn't mean we become friends. No. Just with the employees. They are very kind. We talk a lot with them. (Leila)

A meeting among neighbors in the collective laundry was observed only once during the period of the research. Both, the formal treatment among them and the rush to leave the clothes reinforce what were said in the interviews.

3.5 Sharing in the collective laundry and beyond

Asked about the possibility of washing the clothes of the residents together, to fulfill the maximum capacity of the machines, Sonia said that residents would probably dislike this and she also considers it to be a lack of hygiene.

I think it creates chaos, right? Some people do not like it, right? Some people like to wash their own clothes only. They do not like to mix them with others' clothes. I don't know how they do the laundry outside to avoid mixing them. [...] I think it's not hygienic, right? (Sônia).

To avoid the possibility of contamination, Sonia prefers to wash the clothes of the residents separately. The participants, however, does not know if there is a cleaning system, even though they know the risk of contamination.

Oh, I do not know if it contaminates. That's why I say that it's the correct way (to wash them separately). I wash only your clothes. This way, you do not pass the infection from one to another. (Sônia).

I never thought about that. I also don't know what temperature is needed to dry the clothes[...]. Some machines have an auto cleaning function. I know it also raises the temperature of the water, but I do not know if that happens here. [...] If they do not clean it or do it only a few times, there's a possibility of contamination. But I find it difficult, not impossible, but hard to happen. (Talita).

It is because I worry about my clothes, right? I work in a hospital and to wash my clothes and then the clothes from another person, who has children at home... It should be better if they clean the washing machine between the cycles... (Fernanda).

Fernanda, João Vicente and Leila, who also share the apartment with a friend, commented that the relationship between them is pleasing and they highlight both advantages: having the company of a friend and reducing the costs of living far away from their hometown by sharing the bills.

Each one has a bedroom, but the kitchen and the bathroom are shared. Also, we share the TV, the living room, everything. It is nice. We are as siblings. [...] We did the undergraduate studies together and we came here to do the master degree together. (Leila).

It has its pros and cons, but it's overall good. [...] First, because nobody from my family and nobody that I known live here in Curitiba. So, I have at least one known person who is here together with me. The expenses, of course, which are halved ... And I think these are, more or less, the advantages. [Rosana: What are the disadvantages?] Sometimes you want to be alone and it is not possible. Even having our own separate bedrooms, it is difficult. And they are not like family. That is it. (João Vicente).

Clothes are not taken together to the laundry. Despite of this, the roommates always help each other by taking the other's clothes to the laundry when they can't do it because of the opening time.

I take my clothes and she takes hers. We do not mix them. Each one takes them when they want. If something is used together at home, one or the other can take. [...] But, for example, if I need to take and I know I will not be here, I ask my friend, and then she takes them for me. (Leila).

The relevance of sharing is associated with both the convenience and the unfeasibility of having a washing machine, especially because of the reduced area of the apartment that promotes sharing according to Schrader (1999) and Kazazian (2005).

Actually, I don't have one because of the (reduced) space. But just not having to go out and looking for a laundromat is already great. [Rosana: What if you had space enough in your apartment?] I'd buy the washing machine. My intention is that: to find a place a little higher and put a machine. Because it is more convenient for us, not having to put them down and come back, pick them up on the opening time... So, if we could put (a washing machine) inside the house, it would be inside the house. (Talita).

For me, and I think for my friend too, it is not so valuable to buy a washing machine, because we are here temporarily, right? And we already have several expenses, you know, there's no reason to buy a washing machine and, moreover, the building has the collective laundry. We pay for it, so, what is necessary, we wash. And also the apartment does not have space enough for a washing machine. If we had space, we could even think about buying one, but there isn't space here. (Leila).

Perhaps social interaction could happen in the movie room. But, I personally have never seen anything there. The collective laundry works well for convenience. [...] It is better to give to others to do the job for you and they deliver them dried, folded, in the bag. But I think I'd rather have (a washing machine) at home, because of what I told you. I like doing the laundry after arriving home. The hospital has these clothes... You must arrive home and wash. (Fernanda).

3.6 Advantages and disadvantages

The possibility of having more space in the apartment was not marked by participants in the questionnaire as one of the most important advantages for using the collective laundry, contrasting to what they had pointed out in the interview. For them, the main advantages are the fact that they save money as well as they do not need to purchase appliances, especially because most of them are students and have a limited budget.

Comparing with data from a German study (SCHRADER, 1999), the results about the main advantages for using the service was similar for the second and third main advantages (not having to worry about maintenance and repairs and to help the environment) and at least two important advantages (to avoid the noise in the apartment and the possibility of finding neighbors).

Similarly to Schrader's results, the inability of doing the laundry whenever the resident wishes was considered the most important disadvantage of the system. Also, the cost per use was considered a significant negative aspect, which may be related to the lifestyle of the participants, since most of them are students.

Although participants did not wash their underwear in the collective laundry, the possible lack of privacy and the risk of contamination were also pointed out as main disadvantages of the system, unlike Schrader's results.

Despite being located outside the building, the distance from the main hall to the collective laundry was not considered an important factor, probably because there is a comparison with laundromat, as suggested by João Vicente and Sônia.

Well, someone has to wash the clothes. And as I cannot wash in the apartment, I send them here that is the closest place. (João Vicente).

I guess it's easier, right? Because for them is just getting out from the apartment and bringing them here, instead of going out to the street, taking the clothes and then having to pick them up later... So, here is easier. There are some who call up: "could you just put my clothes in the lift?" Then I put them in the lift and they go straight up. In the laundromat they don't have this, right? [...] There are some that leave the clothes for a long time here and in the laundromat you can't do that. (Sônia)

The possibility of the environment of the laundry to be unpleasant was not marked as important, probably because residents did not remain in the place.

4. Service analysis

Despite the initial impression of chaos, during the first visit to the place, it could be noticed that the collective laundry (Pic. 2) is well organized and no resident reported cases of mixed or missing pieces. A pink note is fixed in the bags, with information about the owner and the requested service. These pink notes that follow the washing process seem to acceptably solve the problem of identifying pieces and owners in a simple way.

Pic. 2: Collective laundry at Solar da Serra residential building



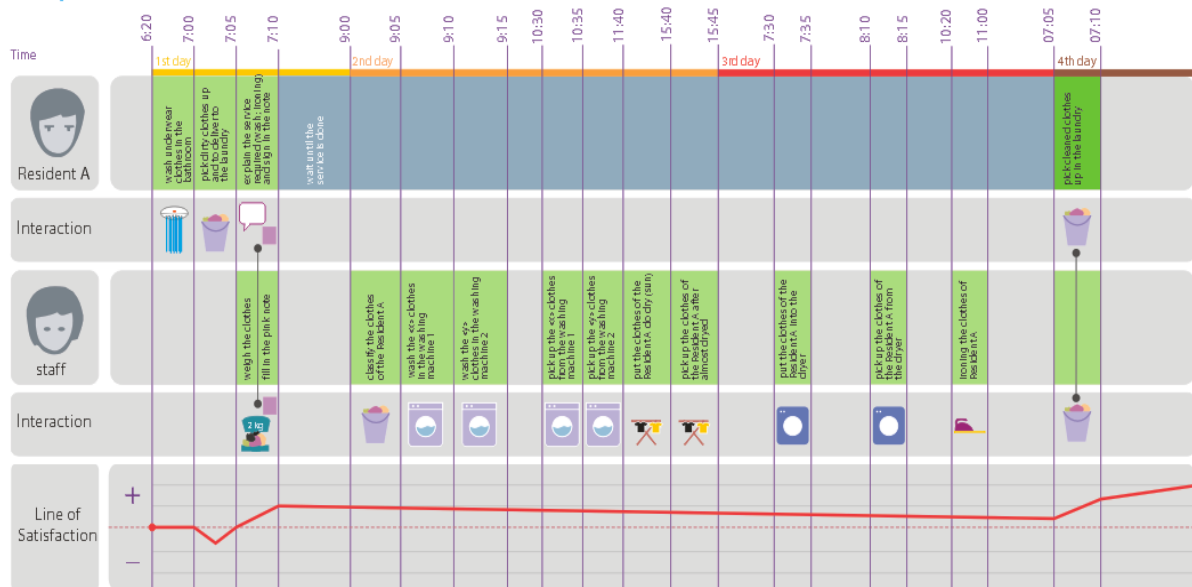
Sônia periodically cleans the machines, but does not do it for every washing process. However, the participants and she believe that the risk of contamination is eliminated with the high temperatures in the dryer.

The existing social interaction among the residents is more formal than in other buildings studied, even though the laundry room is located next to the barbecue area, which is a covered place with tables and chairs where neighbors could remain. However, this area as well as the playground located near the laundry was not used by residents during the period of observations.

It is noteworthy that the convenience of a "full service", as highlighted by Vitor, has direct relationship with the profile of the residents who participated in the survey and is a factor that facilitates acceptance and satisfaction with this system.

Thus, the emotional flow in all points of service interaction, as it was observed and perceived through interviews and questionnaires, could be summarized as in the Blueprint + tool below (Pic. 3).

Blueprint +_ Ed. Solar da Serra



* Clothes «x» and «y» are those separated according to the classification system of the staff (Sônia): color; level of pollution; kind of clothes (kids; bath and kitchen etc.)

Pic. 3: Service Blueprint + for “Solar da Serra” laundry service

5. What could we learn from this case study?

Comparing to other cases studied in the research (VASQUES, 2011), this was the only one in which all the participants were satisfied with the collective laundry. Although some of them complained about the opening hours, and the lack of flexibility on doing the laundry whenever they want; the comfort and convenience of having such service close to the apartment for a lower price than a laundromat are the strongest points that resulted in a favorable evaluation of the service.

It is worth noting the profile of the interviewees (mainly students) and the fact that most of them do not have time to do the service by themselves or to take the clothes to a laundromat.

Doing the laundry is still a time consuming activity even nowadays (BUSCH, 2006). Thus, the convenience of delegating this task to another person is probably one of the main reasons that the service presents a stable emotional flow when the process and its interactions are evaluated and represented in the Blueprint + service tool.

Also, the “full service” model seems to be easier accepted than “self service” models as tenants do not experience difficulties and frustrations concerning the interaction with products and among neighbors.

On the other hand, social interactions and meetings are scarce in this case, showing a weak point of the “full service” model in terms of the social dimension of sustainability. Also, the awareness about the possible low impact of doing the laundry in collective spaces and the environmental problems relate to the laundry are not seen as important for the interviewees, contrary to sustainable guidelines.

Services for sharing have the possibility of reducing the amount of products and materials needed while promoting the regeneration of social fabric and creating new business. Thus, it could be considered a sustainable solution. Nonetheless, as we have been living in a materialistic society since the last century, to change the paradigm of consumption is not that simply as just designing radical changes that are hardly accepted and adopted by users. To be widely adopted, products and service systems must consider beliefs and meanings previously associated with the activity. As a consequence, we propose that user centered design and a deep understanding of the culture have a central role in designing new scenarios, through services and products, that aims to change patterns of consumption from having and owning to being and sharing.

References

BARBOSA, L. Cultura, consumo e identidade: limpeza e poluição na sociedade brasileira contemporânea. In: BARBOSA, L.; CAMPBELL, C. **Cultura, Consumo e Identidade**. Rio de Janeiro: Editora FGV, 2006. p. 107-136.

- BUSCH, N. **Fit for washing**: human factors and ergonomic evaluations of washing machines. PhD Thesis. Delft: Technische Universiteit Delft, 2006.
- CHELLES, G. Lavadora SuperPop. In: STEPHAN, A. P. (Ed.). **10 cases do design brasileiro**. São Paulo: Ed. Blucher, 2008.
- CIPOLLA, C; MANZINI, E. Relational services. **Knowledge, Technology & Policy**, 22, 2009. p. 45-50
- FLICK, U. **Uma Introdução à Pesquisa Qualitativa**. 2. ed. Porto Alegre: Bookman, 2004.
- GEERTZ, C. **A Interpretação das Culturas**. Rio de Janeiro: LTC, 1989.
- KAZAZIAN, T. (Org.). **Haverá a Idade das Coisas Leves**. São Paulo: Editora Senac-SP, 2005.
- MANZINI, E.; VEZZOLI, C. **O Desenvolvimento de Produtos Sustentáveis**: Os Requisitos Ambientais dos Produtos Industriais. São Paulo: Edusp, 2002.
- MONT, O. Institutionalisation of sustainable consumption patterns based on shared use. **Ecological Economics**, 50, 1-2, 2004. p. 135-153.
- MOREIRA, H.; Caleffe, L. G. **Metodologia da Pesquisa para o Professor Pesquisador**. Rio de Janeiro: DP&A, 2006.
- ONO, M. M. **Design industrial e diversidade cultural: sintonia essencial**: estudos de casos nos setores automobilístico, moveleiro e de eletrodomésticos no Brasil. Tese de Doutorado. Faculdade de Arquitetura e Urbanismo, Universidade de São Paulo, 2004.
- POLAINE, A., AEBERSOLD, R., BOSSART, R., METTLER, A. Blueprint+. Service tool presented at Service Design Network Conference, Madeira, 2009. Available in: Service Design Tools <<http://www.servicedesigntools.org/tools/35>>. (30/08/2010).
- ROY, R. Sustainable product-service systems. **Futures**, 32, 2000. p. 289-299.
- SCHRADER, U. Consumer acceptance of eco-efficient services: a German perspective. **Greener Management International**, 25, 1999. p. 105-121.
- TUKKER, A. Eight types of product-service system: eight ways to sustainability? Experiences from Suspronet. **Business Strategy and the Environment**, 13, 2004. p. 246-260.
- VASQUES, R. A. **Design, Cultura e Sustentabilidade**: um estudo sobre uso compartilhado em lavanderias coletivas de edifícios residenciais em Curitiba-PR. (Dissertação de mestrado). Programa de Pós-graduação em Design, Universidade Federal do Paraná, 2011.
- VASQUES, R. A.; LOURENÇO, D. A.; PADOVANI, S. Uso Compartilhado de Máquinas de Lavar: Um Estudo Exploratório Centrado na Satisfação do Usuário. **9º P&D Design**. São Paulo: Anhembi Morumbi, 2009.
- VASQUES, R. A., ONO, M. M. Shared use: Cultural aspects and user satisfaction in doing the laundry together. In CESCHIN, F.; VEZZOLI, C.; ZHANG, J. (Ed.). **LeNS Conference: vol 2. Approaches, methods and tools for (Product-Service) System design for sustainability practice**. Sheffield, UK: Greenleaf Publishing Limited, 2010. p. 1225-1233.
- YÜKSEL, C. U. & Er, Ö. Identifying the mental barriers in the application of use sharing systems: a case study in Izmir, Turkey. In: CESCHIN, F., VEZZOLI, C., ZHANG, J. (Ed.). **LeNS Conference: vol 1. Theoretical contributions on (Product-Service) System design for sustainability**. Sheffield, UK: Greenleaf Publishing Limited, 2010. p. 161-168.