

Service design as an agent of transformation of residential areas: the case of a new Brazilian “gated condo”¹

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Abstract

The phenomenon of new condominiums, located in suburban areas, conceived as gated communities where thousands of people live is today affecting urban development, particularly in emerging countries like Brazil, along with the issue of safety. This paper presents a research study for a service design project to be nested in a “condominio fechado” under construction in Porto Alegre (Brazil), where nearly 10.000 inhabitants are expected. While the architectural project foresees many spaces for services (swimming pools, common kitchens for parties, gyms etc.) it doesn't really address the design of services. The introduction of a service design perspective (Meroni & Sangiorgi, 2011; Miettinen & Koivosto, 2009) is thus strategically interacting with the architectural project by: re-orienting the vision of the close condo towards the idea that services can be links with the city; affecting the conception of spaces starting to design them from the services they will host; innovating the services for the condo moving from a individual to a community centred design perspective. The paper is structured as follows: section 1 describes the phenomenon of gated communities as a contemporary trend in urban housing; section 2 discusses the phases and the output of a preliminary study conducted to design services within a new housing project; section 3 presents lesson learnt from the study and discusses them in terms of the implications for the design of a system of innovative services that goes beyond the existing offering, supporting a process of community building as well as the construction of structured relations with the exterior.

KEYWORDS: service design, housing, gated communities

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Gated communities: a trend in urban living and housing solutions

Cities are complex socio-technical systems that continuously change. Especially during the last century cities have largely developed towards different urban forms. The dominant forms of urban development throughout the twentieth century, notably urban sprawl and/or suburbanisation has moved cities from the traditional centralised form into dispersed urban environments, which at the beginning represented a great improvement for thousands of citizens that moved from polluted and industrialised city centres to newly created suburbs.

The debate about compact city versus urban sprawl has often outlined how urban sprawl has come to dominate developed cities during the twentieth century, through a combination of societal and technological factors. In contrast to this phenomenon The idea of compact city has been introduced as an alternative to urban sprawl, focusing on the limitation of the peripheral expansion of urban areas and the design of solutions for the intensification, increasing the density of existing urban areas by exploiting the systems of services already developed for these areas.

Even if many authors underline the unsustainability of decentralisation, especially in terms of the costs of public services and land resources (Hasse and Lathrop, 2003; Carruthers and Ulfrasson, 2003), decentralized housing keep on being attractive at the individual level, representing a significant real estate business. One of the reasons, among others, of this phenomenon is the crisis of the neighbourhoods, which are nowadays facing difficult challenges, such as dealing with crime and tensions between different ethnical, economic or social groups.

Even if there are many historical examples of gated communities, the contemporary solutions constitute a relatively recent phenomenon. They can be described as large scale and almost self-sufficient urban environments, detached from existing towns and cities, and designed to accommodate a particular targeted community. Gated communities are mainly characterised for their physical and social separation from the city. According to Ben-Joseph (2004), both gated and nongated private communities are spreading among diverse economic and social classes, taking the form of condominiums, cooperatives, single or multifamily homes, adopting different names and formulas in different countries: country clubs in Argentina, lotissements fermés in France, barrios cerrados in Spain, datchas in Russia, condomínios fechados in Brasil. Since they represent a dynamic real estate product with a high R.O.I. and public control has, by far, less relevance than private interests, gated communities can be seen as 'new extraterritorial spaces' (Coy & Pöhler, 2002). Literature review displays a number of reasons for the emergence of this kind of residential solutions (Blakely & Snyder, 1999; Webster, 2001; Webster & Lai, 2003): people seem to prefer them in search of security, a better quality of life, a higher social status, a different lifestyle, a special sense of community and the provision of better services and amenities. Their design and communication are mainly focalized on security, quality of life, and social status: the impact on the urban fabric, the relation with the local community and with the systems of public services normally do not constitute essential concerns. Gated communities are thus characterized by services and facilities that guarantee some level of self-sufficiency and independence from the outside: green spaces, swimming pools, tennis courts, gyms, health clubs, playgrounds, party rooms, collective kitchens, work and play stations, and many other possible facilities.

A preliminary study to redesign the offering of services for a new Brazilian condo

The context

This paper presents a pre-project research study for a service design project to be nested in a new Brazilian gated condo (condominio fechado) under construction in Porto Alegre, where nearly 10.000 inhabitants are expected in a 5 years development program.

Although gated communities are a worldwide phenomenon, they increase more rapidly in countries like Brazil, where the reasons for the establishment of gated communities in urban areas seem to be related to the fear of crime, the growing feeling of insecurity and the perception that the institutions responsible for crime control and reduction are unable to address the situation, as highlighted in an study carried out by CSIR Building and Construction Technology (2002). Furthermore, in growing economies these enclosed developments combine the expectation towards security with the aspiration of belonging to a specific lifestyle and social status. In Brazil, some authors refer to them as “closed condominiums” or “fortified enclaves” or just plainly to “fenced-up areas”. They can be vertical, normally taking the form of luxury apartments; or horizontal, taking the form of enclosed security suburbs, or else low-density developments spread over large areas. Usually, the area is divided into walled residential areas and commercial nodes with neighborhood shops, restaurants, etc.

According to Caldeira (1996), fortified enclaves in Brazil are: a) private property for collective use; b) physically isolated, either by walls, empty spaces or other design devices; c) turned inwards and not to the street; and d) controlled by armed guards and security systems.

Fortified enclaves in Brazil significantly contribute to the transformation of urban spaces: some public spaces are privatized (therefore public access is prohibited), while others become neglected, abandoned and increasingly open to various forms of violence, and in many cases questionable or outright illegal forms of control (CSIR, 2002). The CSIR study also shows that the consequences might be severe, not only challenging the current urban planning and development policies, promoting urban integration on various levels, but also the actual process of political transformation and democratic consolidation. Furthermore, specific types of gated communities may in fact exacerbate already existing problems such as spatial fragmentation and separation, and low-density sprawl, in contradiction to the vision of spatial integration, ultimately leading to more problems than solutions.

The aims

The general aim of the study was to support the design of an innovative model of service design and management for a new service provider, named “America Premium”. America Premium is a start-up company - founded though a joint venture between the landowner and the lawyer taking care of the real estate operation - which will take charge of the administration and the provision of services for the above-mentioned gated condo.

The study assumed as a starting point the idea that while services are normally part of this kind of real estate business, they are not actually designed and connected with the needs of people and sustainable business models, for reasons we will focalize. Since the study was conducted in a real context, and financed by a private company, it was characterized by the necessity to nest the research within a commercial frame. The researchers interpreted this condition as an opportunity more than as a constraint, since it forced to build a strong

connection between the development of the new service ideas and the underlying business models. This peculiar situation gave the opportunity of investigating service design in an advanced perspective, looking at it as a systemic activity requiring multiple competences and the necessity to assume different points of view (Deserti & Rizzo, 2011). This perspective deals with the envisioning and the generation of new business models for service-oriented companies, focusing on interaction (between service provider and end-users, service provider and suppliers, service provider and the external territorial area, etc.) as a mean to produce value. As we will show, the introduction of a service design perspective strategically interacted with the architectural project by: re-orienting the vision of the gated condo towards the idea that services could be links with the city; affecting the conception of spaces starting to design them from the services they will host; innovating the offering of services moving from an individual to a community centred design perspective.

The phases

The study was conducted by an interdisciplinary research team of experts in interaction design, design processes, scenario building, value chains within innovation processes.

The study was structured in a 6 months pre-project program, as follows (Figure 1):

- a preliminary desk research and the preparation of tools for the field activities;
- a first workshop with stakeholders meant to define possible business models for different categories of services;
- the editing of an intermediate document, deepening of the desk research and presenting the results of the first workshop;
- a set of two subsequent workshops with end-users;
- the editing of a final document, defining trajectories for innovation, recommendations and general key findings.



Figure 1. The pre-project research scheme

Intermediate and final results

Preliminary desk research. The desk research was pretty wide, and conducted in different areas to frame the problem and to nurture the ideation process. The main results of the desk research were: the analysis of the current Brazilian real estate business model; the development of a set of nearly 30 cases of advanced services structured in 6 different domains of application (housing and co-housing, mobility, daily and working life, wellness,

wellbeing and safety, leisure and entertainment, digital services); the development of a set of tools (Figure 2) for the conduction of the subsequent workshops.

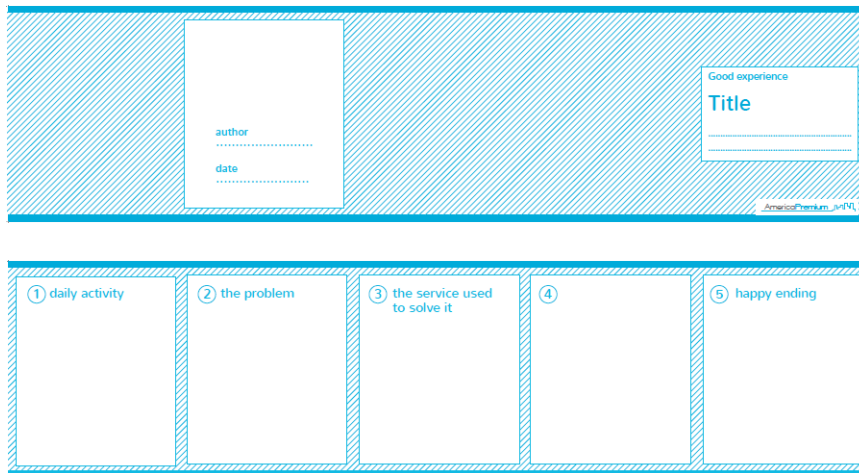


Figure 2. One of the storytelling tools used in the workshops

Business models workshop. The business model workshop was conducted by the research team together with representatives of the main actors of the business: the construction company, the architects, the landowner, the future service company. It was partly based on the use of the BM canvas (Osterwalder & Pigneur, 2009) within and interaction process, and partly based on the discussion in collective seminars of a few assumptions, starting from presentations prepared by the research team as synthetic results of the preliminary research. Interacting with stakeholders and looking at the expectations of customers, services were clustered in 3 areas. The clustering is the result of a brainstorming activity, conducted by the research team after the preliminary research and the interaction with the stakeholders to gather information, whose main aim is to identify different kinds of services, to have the opportunity of subsequently connecting them to different expectations, competitive scenarios, and potential business models.

The main result of the business models workshop was that the future offering structure could/should be differentiated for the three categories, introducing the idea that the service design process must be faced both from the perspective of the end-user and the perspective of the service provider, within a strategic and systemic approach (Cautela and Rizzo, 2011).

‘BASIC’ SERVICES: the ones that the average Brazilian customer would expect when buying a house in a gated condo, and that all the market players are offering as a commodity (security, administration, maintenance, etc.).

The result of the workshop is that basic services should be proposed with an “already included” formula, which means adopting a traditional business model, based on the payment of an average fee, dependent on the dimension of the living unit.

A further insight, with relevant commercial consequences, was that there is space for innovation also in this area, if we have the capability to look at the existing services from a different perspective. E.g. perceived and real security can be enhanced not just by providing traditional security services, such as electronic and physical surveillance, but also by organizing activities in collective spaces, which are in fact part of the advanced services. Also, the research on the already existing service providers showed a trend towards a high

level of commoditization, leaving space for a number of rather simple services, which are not offered due to the limits of knowledge of the existing operators. This insight led to the idea that the area of basic services could be split in two: the real basic services, which can be interpreted as commodities, and some “not offered” services, which can be interpreted as a first area of expansion and differentiation of the offering (Figure 3).

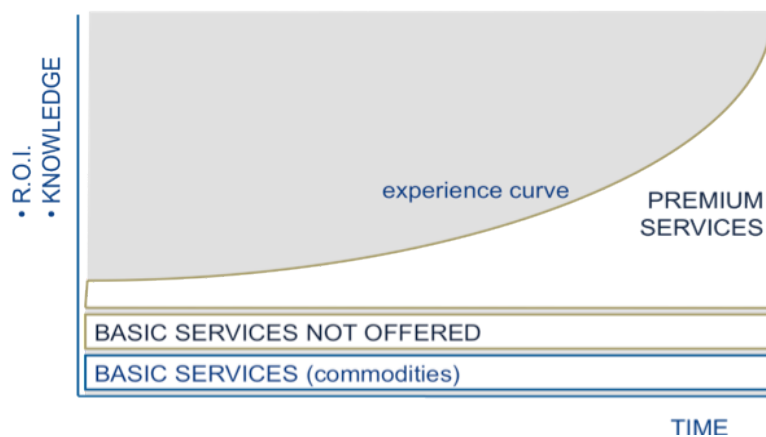


Figure 3. Strategic growth plan for basic and premium services

‘PREMIUM’ SERVICES: the ones that can be identified adopting as a main trajectory the idea of internalizing already existing external services.

The result of the workshop is that premium services can be mainly interpreted as forms of internalization of external services. During the workshop participants freely expressed a wide number of service ideas, subsequently clustered in homogenous groups, by imagining that different kinds of already existing services could be brought inside the condo. The researchers drove the discussion about this service area on the value proposition, and its link with the underlying business model: since these services were already offered outside the gated condo, it seemed crucial to define a competitive differential in relation with the external players.

E.g.: if we imagine an internal supermarket, we have to understand if we can base its value proposition on proximity or on other points, or else the service might satisfy real needs of residents, but might not have a sustainable business model. This idea was later confirmed in the workshop with residents, where was reported the case of an internal market, described as very comfortable by residents, that closed due to insufficient turnover. Adopting this case as exemplar, researchers also discussed the condo as a completely closed system: some services could be offered to a wider group of customers, including the exterior, both in terms of business sustainability and as a way to break the isolation of the gated community.

‘ADVANCED’ SERVICES: the ones that can be identified adopting as a main trajectory the idea of catching ‘weak signals’ in communities of early adopters.

The result of the workshop is that advanced services can be interpreted as the ones linked with niches of early adopters. They are services at the stage of experimentation, not yet completely available in robust forms on the market, which means that the related BMs are also material of research.

The development of advanced services was connected to the set of case-studies preliminarily developed by the research team: starting from the analysis of the cases, the research team

proposed 4 areas of services insights, with the aim of framing trajectories of inspiration for the service design project.

Since the study was nested within a commercial framework, for this service area researchers suggested to assume a 'prototyping attitude', developing experimental samples of the services and the connected BM (Osterwalder & Pigneur, 2009) before working on a larger scale (Figure 4).

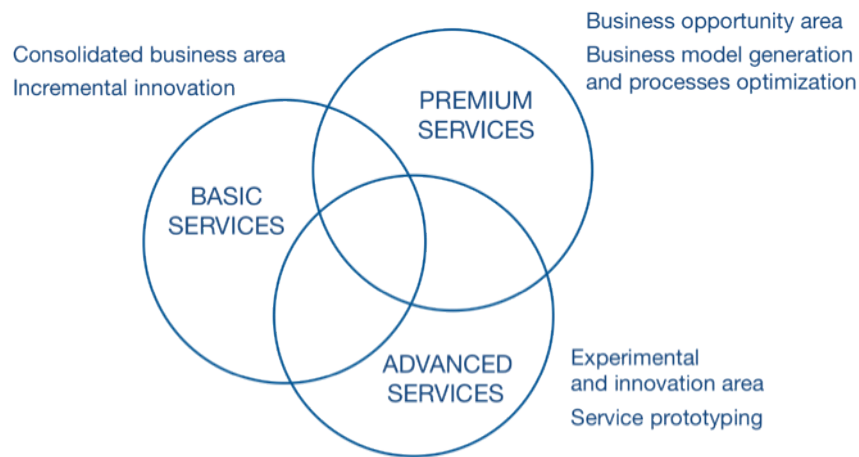


Figure 4. Strategic attitudes for the different service areas

Workshops with the end-users

The aims of the workshops were twofold:

- » to catch the experience of customers living in contexts similar to the one that was under development, defining positive and negative aspects of the existing solutions, and imagining possible new solutions (workshop 1);
- » to collect needs of future residents, defining expectations to be fulfilled through the development of the project (workshop 2).

Expected results from the workshop were:

- » a map of the residents' experience;
- » a map of innovative behaviours as answers to some "services' lacks";
- » trajectories for the design of future services;
- » the mental model of the future residents about their life in the condo;
- » a map of the future residents' needs;
- » the specification of the areas of service that future residents recognise as promising.

Both workshops were designed as a series of micro exercises meant to engage groups of 7-9 people in a process of storytelling about their experiences.

Designers/researchers led the workshops. The information built with the end-users was clustered in three sets:

- » needs, what people lack;
- » expectations, what people imagine that should be offered to them;
- » solutions, ideas of new services that could solve some problems or that people regard as really interesting and useful for their condo.

The results of the workshops can be summarised as follows:

- » the definition of the relevant service areas, through the clustering of homogenous services, extracted (by the research team) from people stories, on which residents expressed significant expectations;
- » the focalization of some of the main problems with the already existing services, and suggestions for possible solutions;
- » the development of a few service ideas that could be subsequently developed by matching them with a coherent business model, chosen (by the research team) among others because they can also answer to some of the needs expressed by future residents during the interviews.

Lesson learnt from the study

Results obtained from the preliminary study offer the possibility to conduct some interesting reflections on three distinguished levels:

- » the relation between services and spaces: from tangibles to intangibles;
- » the interaction with customers: from a transactional to a relational approach;
- » the relation among users: community building and new ways of living.

The relation between services and spaces: from tangibles to intangibles

While in current literature services are seen as complex processes, which are sometimes substituting tangible products (Meroni & Sangiorgi, 2011; Mager, 2004; King, 2009, Vargo & Lush, 2008), that must be carefully designed in terms of interaction and even aesthetics of interaction (Hummels & Overbeeke, 2010) in the real estate business they represent a mere appendix to the tangible product, and are thus underestimated both in terms of competences needed for their design and in terms of potential in the construction of value and impact on the redesign of the business model.

Within the current system real estate companies are “selling” the images of a few spaces supposedly hosting some services, as an accessory meant to increase the value of the main offering. The idea of the existence of the services is powerfully supported by the high level of definition of the spaces, which are represented completely furnished through high-quality renderings, giving the impression of really existing environments.

In reality, while the spaces are so carefully represented, none of the supposedly hosted services are designed, not even at a basic level. What normally happens – as results from the preliminary studies, the workshops and the interviews - is that the existing gated communities are characterized by a large amount of common spaces devoted to services, which work in poor way even if the spaces are completely equipped to host them.

The research shows how this phenomenon is mainly linked on one hand to the “material” culture of the building company and the urban and architectural designers; on the other hand to the lack of an economic motivation, or else the lack of a direct interest in services offered to future residents as part of the real estate business.

This situation leads to an industrialized process of design of the services to be nested in gated housing developments, which tend to assume the same configuration as a cliché in every situation. Since gated condos are huge housing developments normally hosting a wide number of residents (sometimes more than 100.000), they are structured in separate allotments, which are often subdivided in single building or groups of buildings that share the same service spaces, which are thus repeated for every building or group of buildings.

Starting from this situation, and considering the necessity to look at the same time at the needs of people and at the sustainability of the business model adopted by the service provider, the study focalized the idea that services should be clustered in relation with the opportunity of centralize or distribute them (Figure 5). While the current model is always based on a system of distributed services meant to satisfy the need of appropriation of individuals; the future one could consider the possibility of centralization of many services, both in terms of efficiency and economic sustainability, and in terms of aggregation and community building.

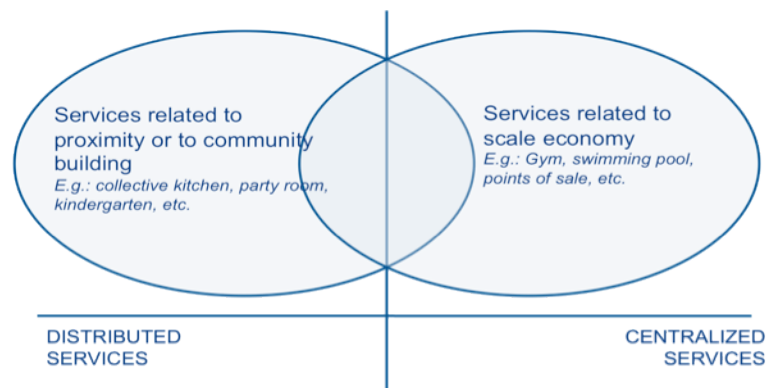


Figure 5. Distributed Vs. centralized services

The interaction with customers: from a transactional to a relational approach

The existing approach to real estate services in Brazil is mainly characterized by a transactional marketing approach. New housing developments are seen as products that can be communicated with sophisticate brochures and websites, and sometimes even branded. Services offered to end-customers are thus concentrated in the “during-sale” period: retail space is accurately designed to host customers in an experiential environment, where they can visit pre-finished houses completely furnished and decorated in different styles, and discuss with sales personnel technical and financial proposals.

Service spaces have a high visibility, and are presented through high-definition renderings to give the idea of their final aspect, but they are mainly used as a selling argument, relying on the lifestyle and status aspirations of customers. Within this frame, the real nature of services as processes that must be structured, organized and related to physical touch points is not at all considered. At the same time, the social dimension that services should comprise in a collective housing project is completely missing: services are not seen within a ‘community building’ framework, and future residents are not involved in their planning and management. Due to this attitude, the pre-planned services normally presented within real estate offering are mainly linked to individual needs, and tend to lead to isolation, both inside the condo and in the relation between the condo and the external environment.

If we look at housing services not just from the point of view of the real estate operators, we find significant areas of opportunity mainly coming from the idea that their design can be “stretched”, considering three different moments in which they can be delivered: pre-sale; during-sale; after-sale (Figure 6).

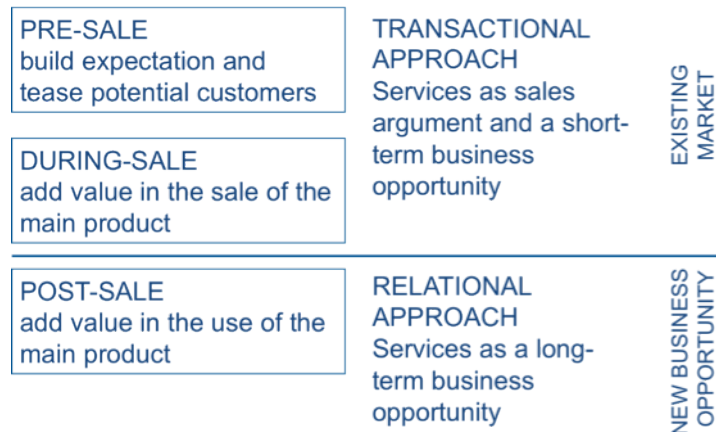


Figure 6. Post-sale services as an area of business opportunity

In this perspective we can introduce a relational attitude, going beyond the transactional approach, and considering the after-sale services as a wide area of business opportunity for the same building companies. The idea of selling living solutions would then substitute that of selling houses, with many possible consequences in terms of offering, business model and creation of value.

The relation among users: community building and new ways of living

Closed condominiums in Brazil are private residential developments in which the main concerns are associated with security, quality of life, provision of services, lifestyle and social status. In these housing developments the concept of local community does not constitute an essential concern: Brazilian real estate operators consider gated condominiums an investment product that sells better than other residential typologies, and tend to communicate them as exclusive, through the segregation from the rest of the city and the introduction of complementary services conveying the idea of self-sufficiency. Within this vision, relational services meant to support the community of residents are not considered as one of the driver along which to develop and expand the service offering. Nevertheless, we learnt that after some time people living in gated condos develop a sense of community that goes beyond the initial relation of courtesy (which depends on the proximity of people). As an example, participants in the first workshop were trying to organise themselves into an explicit community devoted to: build a stronger and more effective neighbourhood; organise themselves to cooperate in solving problems; make their condo a better neighbourhood for young people; build a stronger feeling of community.

A significant result of the study is that it will be highly probable that future residents will constitute a “basic community” (since they will share the place where they will live) likely to be served by designing a basic system of services supporting their initial needs, but also scalable in order to support future needs like sharing, mutual helping, taking care of the common goods, improving people life in terms of conviviality, sociability, and security of the whole neighbourhood.

Opportunity for the development of new services will therefore come from:

- » basic and premium services to share common resources and support polite behaviours among residents of the condo (boking common resources, sharing equipments, offering basic support to each other);

- » advanced services for social life in the condo to help neighbours in sharing events, activities, becoming part of associations, etc., so to improve the conviviality of the place where they live;
- » advanced services for family care to support neighbours in taking care of their family through the use of common spaces and resources, like for example kids and elderly care.

Conclusions

The preliminary study discussed in this paper has investigated threats and opportunities for a project of services for a new Brazilian gated condo. Data show that future residents would benefit from the ideation of a complex system of services articulated on three main trajectories of innovation:

- » services should be designed in relation with the opportunity of centralize or distribute them;
- » services should adopt a new customers approach moving from a transactional perspective towards a relational one;
- » services should support the community of residents.
- » Following these trajectories will require a systemic approach so to:
- » define a strategic vision for project of the services for the gated condo, starting from the definition of sustainable BM;
- » design the back-end of all the processes needed to deliver the services (including stakeholders, technological platforms, public and private partnerships, etc.);
- » design the customer experience in all the channels of relations (touch points, material substrate of services, communication channels, service spaces, etc.).

The study also shows that competences in urban and architectural design are no more sufficient when the demands move from the tangible level of planning to the intangible level of how to improve the quality of life in neighbourhood by designing a tailored systems of services. In others words, when the design intervention moves from macroscopic transformations to the neighbourhood and community levels. This is an interesting consideration that in the context of this project authors could not investigate at a deeper level, but that represents a promising area of research that could be furthermore observed in the future. The intervention of service design competences and knowledge, as discussed in the paper, can become strategic in supporting urban planning at the micro-scale, where service design can potentially address the complex relationships between spaces, services and the architectural project of a new urban area.

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