

Housing energy-related renovations from a lifestyle and social standards perspective: insights from Portuguese homeowners

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Abstract. Recent studies argue that energy-related renovations which are not distinctive from other house improvements must be socially contextualized and intercepted with the householders' daily social practices. Within a practice-theory approach, this study aims to explore how tastes, lifestyles and social values and norms can be brought into the understandings of energy renovation practices of Portuguese homeowners. The outcomes disclosed differentiated taste-motivated issues which boost homeowners to renovate. This highlighted the importance of energy policy-makers understand the diversity of homeowners' desires and preferences regarding house renovation activities. Reflecting upon this diversity inside the household domain, gender differences revealed to be a significant factor, being women an undervalued resource despite their key influence on domestic energy management. Results also reinforce previous theories about how home renovations decisions reflects societal values and norms which determined "what would look nice" to have in a house and which determine, in part, why visible renovations are so prioritized, frequently not energy-related. Findings suggested also that energy policies should be drawn making energy efficiency in houses as fashionable as other consumer goods related with home design. Innovative partnerships between energy policy-makers and household products industries, home design magazines, marketing experts or real estate experts, which have the know-how on shaping people's tendencies and tastes, are needed.

1 Introduction

The reduction of CO₂ emissions from owner-occupied houses is considered nowadays a paramount political interest in many countries generated by the claimed high potential for energy savings [1]. Nevertheless, the implemented policies are not resulting in renovation rates that enables to meet the ambitioned targets [2]. In fact, housing energy-related renovations are still not considered as a common practice [3] and when they take place they get merged with the other house renovations in a predominantly step-by-step process as a continuous improvement for living in and maintaining homes [2,4]. Several times energy efficiency is not the main drive to renovate but other house renovations may include

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improved energy efficiency [5]. However, energy professionals have a tendency to see houses exclusively as technical constructions apart from the aspirations that people who dwell inside have for themselves [6]. The techno-economic approach dominates by far within energy policies [3]. Narrow arguments for motivating homeowners are still based on the idea that they wish to make one-event renovation due to save energy and money but are disallowed from doing so mostly by financial constraints, doubts regarding energy savings, financial return and professionals' reliability [5]. This has been the support to behavioural sciences used to explain human behaviour that treats homeowners as individuals who make rational choices in order to obtain certain results which are dissociated from mundane perspectives and practices of everyday life [5]. Nonetheless, recent approaches request for social science in order to conceptualise the housing renovation as a social practice identifying what and how this practice is shaped by householders' daily life conditions, their preferences and aspirations, as well as by societal values and norms [7-15]. To overcome an identified lack of social norms about energy-related renovations which prevents them from being valued [3], the former studies suggest to associate some largely shared values and common understandings connected with homeowners' everyday lives with the energy-related home improvements. Hence, this study aims to collect opinions and experiences to get an in-depth knowledge about the influence that specific values, such as the ones related with tastes, lifestyles and social values and norms, have on the motivation of Portuguese homeowners to make energy-related renovations in owner-occupied houses.

2 Contextual background

When it comes to everyday life in homes, people do not think themselves as energy consumers but they consume while carrying their usual routines in an unconsciously way [16]. Therefore, houses and people evolve together reflecting one another and because people change along life, houses get influenced through a long and dynamic relationship [6]. Thus, in domestic energy research, houses (as a physical structure) need to be seen as homes (spaces imbued with meanings and emotional significance) [6]. Accordingly, energy-related home renovations, which some studies refer that should not be seen as distinctive of other home renovations [2, 5], are an adaptation of homes' features in order to put them convenient to their dwellers [14]. They take place, in a practice-theory approach, when are compatible with frequently performed social practices around the creation and maintenance of rhythms, needs, standards and conventions of daily life [4]. Hence, if home renovations, energy or non-energy, are conceptualized as a practice shaped by mundane home practices, the interaction along time of four fundamental groups of elements, such as habits and know-how, engagements or shared understandings and meanings, explicit rules and materials or technologies needs to be understood [3,17,18].

However, behavioural science, usually applied in house energy research, do not consider house renovation as social practice because is limited to the decision rather than to the process preceding it [5]. In fact, the decision to renovate is itself a process, rooted in a socio-economic and cultural context and negotiated at the householders' level, and which arise from and take place within the home life dynamics [4]. Within this negotiation, gender is a factor undervalued by energy policies, particularly women who play a key role in domestic routines and energy management [15]. Framing the decision-making process to renovate within these home dynamics brings to the light those deepest influences at the beginning of decision (why renovate?) and with which social science work better than behaviour sciences [5]. Homeowners' stages of life course, conditions of domestic life, experience with renovations, home meanings or householders' roles and relationships within household dynamics are all possible main primarily influences beyond a home renovation decision [5]. Furthermore, because oftentimes home renovation is a way for

dwellers to resolve tensions, achieve goals, take up opportunities and give wings to personal and family ambitions, aspirational renovations overpass frequently renovations made out of necessity being, in general, as favourites since they let homeowners to dream about, make plans and show to others [3, 9]. This social desire paths on renovations need to be better apprehend within understandings of tastes, social status, lifestyles and consumer choices [9,15,19] or even contextualizing the homeowners' decisions through a lifestyle vs. *wear and tear* and a product vs process analysis which delineates the arrays with which homeowners' decision operate [9]. With regard to tastes and lifestyles, homeowners having a calm and busy life [20], appreciating a healthy or environmental lifestyles [3,19], wanting something more fashionable for their house [9] or being DIY adopters [9,21] can reveal differentiated types of homeowners profiles and energy renovations propensities and styles.

How homes express or reflect householders' identity is one of the specific conditions of domestic life some authors recommend to be studied [5]. Houses are makers of social values and status and frames for social relations [6] with householders being carriers of social norms, that establish what is normal to do and say [6]. The "what would be nice to have" and "what look nice" for homes are frequently confronted with advantageous economic solutions due to the fact that how other people see the house is important for householders [6]. Some renovations may be connoted with an improved social status and invoke an image of prosperity and prestige [6] despite some authors consider that the lack of enthusiasm about energy efficiency measures is due to the fact that energy efficiency do not rank as a social status symbol [19]. Enhanced status as a motive for renovations is first and foremost carried via visual perception and thus reduced to visible renovations measures [3]. In fact, visible renovations tend to be frequently prioritized and made before other non-visible measures although homeowners know are not the most balanced options [4,11,19,22]. Subsequently, the visual aspects of home renovation seem to be as important as the technological aspects [19] even because the renovation is often interconnected with the improvement of aesthetic aspects of the house [9, 22, 23].

3 Materials and methods

A qualitative in-depth exploratory study was selected to deepen knowledge and make emerge new topics about the role that homeowners' tastes, lifestyles, social values and norms play in housing renovation uptake in Portugal. The main goal was to identify underlying reasons, emphasising the *how* and *what* is happening and not *how much* is happening. Hence, to analyse how everyday life practices affects home renovation, the practice-theory has proved to be a promising approach since its focus is on practices and not on individuals [24]. Therefore, the practice-theory approach was the theoretical baseline used, as discussed above. Note that the goal is to achieve outcomes from a collective practice point of view since the research goal is related with social practices and the decision to renovate homes is in general not an individual decision but involves family negotiation and social network influence [5].

A set of fifteen in-depth and semi-structured interviews were conducted between September 2020 to March 2021. Three of them to Portuguese certified energy advisors and twelve to Portuguese homeowners of single-family buildings owner-occupied, with a length of approximately 60 minutes. Some few interviews took more than 60 minutes due to a more active participation of some participants. The semi-structured interviews enabled the informants to describe better their experiences in their own terms and thereby to redefine the scope of the interview questions if necessary. Studies suggest that seven interviews are sufficient for make emerge relevant data [25], however the additional interviews made provided redundancy and more richness of data. Sixteen Portuguese homeowners/householders of owner-occupied single-family buildings (10 males + 6

females, ages between 39-65) were interviewed. It was asked in a first contact if it was possible for more than one person per household to participate, preferably the couple. The aim was to collect, as much as possible, opinions and experiences from women due to their growing importance in this subject [15]. Four interviews included, in full time, the couples, in the other, family members were present for brief instances (Table 1).

Table 1. Interviews participants' characteristics

Interviewees	Number of interviews	Persons per interview	Gender per interview
Homeowners/ Householders	6	1	1 Male
	2	1	1 Female
	4	2	1 Male and 1 Female (couple)
Energy Advisors	3	1	1 Male

The participants were selected following purposeful sampling used in qualitative research for the identification and selection of information-rich cases related to a phenomenon of interest [26]. It utilizes specific criteria to select a particular sample which the aim is to collect in-depth information from the right respondents [26]. In this case, selecting homeowners of single-family buildings owner-occupied that had already made some energy-related improvements in the few last years or who were in the process to of doing so was the first main criteria. The sample varied according to actual possibilities, being the families' composition of more than one member also relevant to select the participants in order to understand the decision-making dynamics inside the family. The selection of the sample was guided by the energy advisors.

Firstly, semi-structured interview plans were prepared for both interviews (homeowners and energy advisors). The interviews with the energy advisors were made first to make possible to collect relevant issues to use in the further interviews. An interview guide, with the summary of topics to explore, and the interviewer intervention mode were defined in these plans. Hypotheses constructed from the theoretical background were used to define the fundamental interview topics which were used to prepare a group of direct (closed and open) questions. But before that, an introductory approach to explore general motives why homeowners did or usually do renovations was put in practice refraining the use of some particular terms related with the study aim until the interviewees raised their own themes. The main strategy used along the interview sessions was to make first direct closed questions in line with the interview guide topics followed by open questions. The open questions aimed to induce the interviewed to spoke more about a particular subject to deepen the knowledge about it or make new issues arise. Despite the direct questions were closely dependent and interrelated with the interview guide, spur-of-the-moment questions emerged during the interviews in response to the flow of homeowners' narratives. Without losing the aim of the research, key questions were intentionally asked during the interview to: give continuity to spontaneous conversations (the interviewees express themselves following the course of t thoughts [26]) and to guarantee that the interviews made a logical sense for the interviewees and give them confidence. Great part of the interview sessions was used to explore the interviewees' narratives. In sum, information did not emerge rigidly and exclusively in response to the sequence of questions prepared by interviewers' and based in theoretical notions about the subject under investigation.

The interview structure for homeowners was organized around the day-to-day experience of living inside the home, the daily social practices inside the family and with

the social network around. In order to get more reliable narratives, the interviewees were helped to remember part of their day life [26]. Included questions about: the renovations made (energy-related or not); justification thereof; the homeowners' lifetime stage/context; the householders' beliefs, aspirations and ideals for the family, the planning phase, the negotiation for decision inside the family/householders; the social environment around and the community social values and norms involved. Table 2 summarizes the general topics that guided the interviews questions.

Studies identified some challenges when it comes to interviewing householders on their energy efficient decisions. Possible biases are related with some facts: homeowners are highly involved in the decision and lack relevant technical and economical knowledge; they can demonstrate the commonly described "attitude action gap" (what consumers report as concerns or intentions has often little relation with what they do) and consumers tend to change their evaluation after high-involvement purchases [19]. Therefore, energy advisors were also selected to collect information for the study in order to try to get a rather unbiased view of homeowners decision-making and get insights from the accumulated knowledge they gain through multiple in person energy consultations they made along their professional experience. Therefore, detailed data can be collected with a limited number of interviews. Hence, energy advisors (with more than 5 years of experience) made also part of the sample. Built on the information known from the theoretical framework, a similar interview plan to the designed for the homeowners was used (with some few adaptations). The focus during these interviews was to let them reveal their considerations and experiences when dealing with homeowners as professionals (Table 2).

Video-conference was used which allowed face-to-face interaction and capture by the researcher of both affective and cognitive aspects of the interviewees. It was not possible to make a walk-through their houses.

All the interviewees were primarily elucidated with clear explanations about the purpose of the study, the ethical guidelines governing the interviews, the use of data and the recording of the interview to make disappear any possible fears. Another important rule followed was to ensure an environment of tranquillity and confidence to the interviewees.

The data collected was confronted, analysed and discussed through a qualitative research method. The analysis was inductive which relies on inductive reasoning, where the themes emerge from the raw data through repeated examination and comparison. The interviews were digitally recorded and then their transcripts were coded and categorized (with the help of qualitative software webQDA) using a realist theory approach which detect the most common themes along the transcriptions in line with the research questions but also try to see how the previous knowledge about the subject might be addressed and enlighten by the data [27]. All the interviewees were given pseudonyms from the transcription phase onwards. Given the number of respondents, the results could be, eventually, not demonstrative of all cases and are limited to the universe of the circumstances found but qualitative findings from small sample interviews followed a statistical theory of small sample qualitative research [28]. When interviewing limited number of interviewees caution must be taken on how results are generalized [3] even though the information taken provided a significantly comprehensive understanding on some ways of renovating a home.

Table 2. Topics used in the homeowners' interview plan

Minutes	Interview Topics
5	Brief characterization of interviewees (age, education, family composition, position in life)
	Renovations made (energy-related or not) and when, in homeowners' lifetime/context, they were made
10	<p>Preliminary assessment of general factors for renovations to take place in order to make emerge new issues (refrained to use terms related with previous knowledge about the subject from theoretical background in order to minimize any influence through the homeowners' narratives)</p> <p>Put the interviewees speaking about home life before and after the renovation</p>
20	Explore and deepen the terms/reasons/subjects specified by homeowners related with the research goals in response to the questions made previously (using pre-prepared or spontaneous open questions)
20	<p>Explore other issues/influences based on the literature review that did not emerge from the previous exploratory part</p> <p>Using closed direct questions (Ex: Do you think this issue is important?) and afterward letting interviewees to construct their narratives through open questions (Ex: Why? Why not? What do you think about this?)</p> <p>Topics:</p> <ul style="list-style-type: none"> -Tensions and negotiation for decision to renovate within the householders -Taste-motivated influences for renovating -Personal beliefs, emotions and aspirations for their home -Day-to day life inside home, dreamed ideals for family life and home living standards (lifestyle-related issues and family identity) -Energy-related renovations associated to prestige and as transmitting something about the family identity and "way of living" - Visible renovations and how homeowners think their houses should look like -Friends, family and neighbours influence within the social network -Social values and norms in community that influence house design -Fashion and trends influence on shaping home design and homeowners' decisions
5	Finalizing the interview

4 Results and discussion

4.1 General outcomes

The analysis to the transcripts disclosed that Portuguese homeowners interviewed started by doing small, sometimes low-cost renovations, which were not necessarily energetic-related, and gradually continued, or not, with other renovations throughout the time. Energy improvements made part of initial plans for some of the interviewees or arise for other purposes later in the renovation process as an additional benefit. The perception highlighted during the research is that save energy is not an end in itself, homeowners conceptually link the energy renovations with other associated benefits they expected to reach with the renovation (e.g. house is going to look modern and updated, using less clothes inside, children enjoy more time in their bedroom).

The results reinforced also that the decision to renovate was, in most of the situations, entrenched in a householders' negotiation where differentiated decisions-makers have many times discordant aspirations and priorities. The social influences discussed in the following chapters help to explain the initial intention to renovate but the findings point out that homeowners' engagement in a renovation is a complex process that needs a non-conflicting coexistence with other motives, through a cognitive multiple criteria process that depend of each person.

4.2 Tastes and lifestyles influencing energy-related renovations

Primarily, the results suggest that personal beliefs, emotions, aspirations and shared understandings are in some degree involved in the decision about home improvements even in the cases involving energy renovations where homeowners knew, informed by energy advisors, that rational arguments pointed out to select other solutions. The Portuguese energy advisors interviewed unanimously agreed that there are underlying emotional influences beneath the options for their clients usually take that overpassed frequently energy savings and monetary arguments. One of the energy advisors stated about this:

This is not necessary wrong because for them there is a logic behind, we should be capable of understand that logic.

(Pedro, male, 46)

He also stated that negative ideas about energy renovations exist, and it can be a disruption in the process difficult to overcome.

Taste-motivated energy renovations were revealed by the presence on the interviews of a range of enthusiasts in passive house design, building aesthetics/interior design, innovative energy supply technologies, conspicuous consumption, DIY, domestic project management and indoor comfort, each of them with different levels of engagement (Fig. 1). The narratives suggested that some homeowners' tastes have a strong influence both in the initial decision to renovate and also in the subsequent decision on what to renovate. One of the energy advisors interviewed refereed that taste-motivated reasons are often interconnected with homeowner apparent lifestyle.

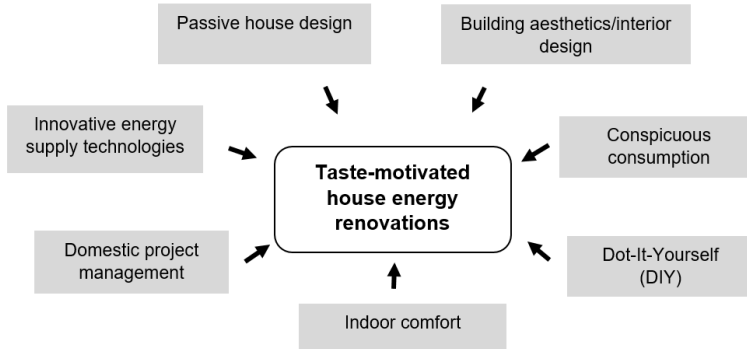


Fig. 1. Taste-motivated reasons for home renovation adoption identified in the study

A significant range of homeowners demonstrated fascination by passive houses design as a sign of modernity. In contrast, two women linked these types of houses with an unpleasant building design.

The visibility of the renewable energy systems gives an aesthetical empowerment to the house for some homeowners and in return others think they create an unpleasant house appearance (solar collectors' panels in the roof visible from main street, for example). One woman revealed that had been resilient to install the solar collectors in the most efficient part of the roof because it was visible from outside. In general, to be appealing, energy-related renovations need to be convergent with an idealized appearance for the house. Thus, a 3D visualization software to display to the homeowners the final house appearance with the visible energy improvements recommended could be an interesting tool used by energy advisors to convince homeowners.

Aesthetics improvement as a drive to renovation, mentioned principally by the middle-aged women, were due to the fact that they no longer felt identified with the image of the house as a consequence of their tastes gradually changed over lifetime. If the women interviewed revealed more attractiveness for indoor comfort and house appearance, men manifested to be seduced by technical innovations about which they like to be up to date. Tensions were perceptible during the interviews between the couples' concerning preferences and priorities.

Energy advisors also referred that energy systems tend to be overvalued by their clients as "miraculous" devices that are going to solve the energy inefficiency of their homes. In part, the fascination by innovative systems and by aesthetic improvements for houses was linked by one energy advisor to a modern conspicuous consumption practice, which involves purchasing great quantity of goods/services, especially expensive things, to publicly display wealth rather than to cover what was necessary in practice. This expose a potential connection of energy-related renovations to luxury goods markets to be used by energy policies, about which certain industries and marketing experts have a long experience and knowhow.

Another personal taste exposed by some informants was the enjoyable hobby of planning and follow the renovations to which they feel very committed and involved. One of them stated:

I got excited about the planning process, to see things being done day after day was really good.

(Jorge, male, 55)

These findings suggest that there are still a significant unexplored niche markets about tastes in home energy policies.

With regard to lifestyles that influence renovations, dreamed ideals of family life and maintaining or changing home living standards were some of the reasons for the respondents to adjust the materiality of their houses. Houses built in the past were design regarding other functionality concerns not compatible with modern living patterns. One practice identified in four of the Portuguese informants to trigger energy efficient renovations was the practice of socializing with family and friends at home which conflicts with saving energy because tend to increase energy consumption. Comfortable spaces for schoolchildren to play was also mentioned by a younger couple as a drive to energy improvements. Also, to maintain balanced relationships between householders around the day-to-day activities of living at home was also declared. An example extracted from the narratives were the current generation of teenagers who makes an intensive use of their bedrooms, where they study, have a computer and sometimes even a television. More comfortable spaces, more energy load is needed during the day, contrarily to what happened in the past, when most home life activities took place in the kitchen and living room. Moreover, some become aware of how beneficial had been to make energy renovations because they had to work from home lately due to the pandemic situation. A good example of how the frontiers between home and professional activities can be today more indistinct and lift renovation rates. This brings into the discussion that generalised comfort all over the house has become required pattern of the Portuguese modern life at home, for which the women interviewed seemed more attentive and demanding.

A change in the social status or a beginning, or ending, of a life cycle was also a lifestyle-related issue addressed by the Portuguese informants in their narratives. Three of the middle-aged homeowners (45-60 years old) recognized that a new position in life and a change in their socio-economic circumstances induced them to make house improvements. Two examples are revealed in the following quotes:

I am in a position in life where I want to do what pleases me most and I do not mind to spend some extra money on it.

(Rui, male, 56)

My husband got a job promotion and some of his colleagues are from a higher social class. All of them have energy efficient systems installed.

(Carla, female, 53)

Examples of concerns about the fact that the building was no longer compatible with their actual personal and family identity, “way of living” or even with what they dream for their family in a near future were found in the transcripts. New jobs, new friends and the beginning of a new life cycle, sometimes financially more stable, made people want more for their homes as if the house were an extension of themselves. These examples strengthen the fact that homeowners’ life and their individual preferences evolve during their life and the house is the setting that needs to keep up with this.

4.3 Social networks, values and norms influencing energy-related renovations

The outcomes reinforced that personal tastes and self-ambitioned lifestyle are not the only direct elements responsible for what Portuguese homeowners think about how their houses should look like. The data analysis suggested that homeowners’ opinions and family standards about the house were determined by cultural and social values and norms largely shared in the society, with more influence than campaigns, rules and financial incentives.

Majority of homeowners revealed concerned about what social identity their house exhibit to the local community through its appearance and consequently about the way the home is perceived by the neighbourhood, many times as an object of their judgments. They admit in their responses that they wanted a house that better reflects the image of themselves. In many situations energy advisors sensed that homeowners' choices are determined by a hidden willingness to display an overrated image of themselves or a certain social status. Nevertheless, none of the homeowners directly recognized this in the interviews. To interest this group of homeowners in energy renovations, maybe energy policies should define strategies to connote passive house standards with a high social status. When were asked what energy-related renovations they associate to prestige and as transmitting something about the family lifestyle, the most mentioned were installing new windows, solar thermal collectors or PV solar panels and renovate the gardens, all visible from the outside. This suggest that visibility is somehow important and prioritized by the homeowners. Only two, both younger respondents, declared do not even care if they are visible or not suggesting that an environmental concern was more in their minds. In sum, homeowners' aspirations about their house tend to reflect what others and society in general consider the ideal home should be. Therefore, if social norms included energy efficiency as an important feature a house should have maybe this will help to boost energy renovation market.

Because more than a half of homeowners spoke spontaneously about what neighbours had implemented in their homes and also due to the fact that energy advisors mentioned that many clients use their neighbours to exemplify what they prefer, it is probable that comparisons are constantly made, and an implicit competition exist. An example citation:

I was not very attentive to campaigns about renewable energy systems until some neighbours started to put solar collectors on their roofs and their feedback was quite good. Some of them used to ask me, why don't you try? Well... at some point I didn't even know anymore what to answer!

(Hugo, male, 50)

Friends and neighbours seem to have also a major influence in sharing information within the social network. Energy advisors confirmed that the homeowners' social context, through knowledge networks, define implicitly an imagined standard for houses in each community and homeowners, unconsciously or not, make gradual efforts to corresponds, sometimes even overpassing their taste.

In general, fashions can lead to more general consumption or even to conspicuous consumption connoted with high social status. Fashion and trends created by household products industry marketing strategies and home design and decoration magazines was an interesting topic that arise more than one time from the women responses. One woman revealed:

"I love internal decoration and beautiful houses and I usually read some articles in a home decoration magazine. Heating systems, types of windows and other things appear from time to time. Gave me some confidence to go forward with my plans.

(Rute, female, 61)

This suggest that energy policies could be inspired by the way these sectors visually stimulate different house owners to model their tastes and demands. Partnerships between them and authorities, policymakers, marketing experts and real estate agents could bring an innovative approach for energy policies.

5 Conclusions

This exploratory study strengthened the existence of a high emotional involvement behind the Portuguese homeowners' decision to renovate their houses that many times overpasses economically rational arguments. Houses are emotional and social places that tend to reflect during time personal tastes and shared understandings of their householders. Because achieve convenience and personal fulfilment are important criteria for homeowners, ambitious renovations, frequently taste-motivated, can take place. In the same way, desired or out of necessity changings in the way homes are used can also activate mental processes in homeowners to make renovations. These outcomes highlighted the importance of understanding and categorize the diversity of householders' tastes and subsequently lifestyles in a way to make a bond between energy-related renovations and the subjects homeowners most appreciate and enjoy. Energy policies should work with these linkages.

This study also shed light to the fact that since the decision to renovate involve a negotiation between more than one decision-makers per household, gender becomes a strongly influence factor, where women, due to their role on domestic energy consumption and management, need to be most taken into account by policy-makers.

As a mean to express the householders' identity or the identity them want to display, if a house is no longer compatible with these attributes, it is likely that house improvements, energy-related or not, happen. But the reality seems to be more complex. This identity is more or less also influenced by the social values and norms shared in the community, regarding house design and social relations, making society a decisive factor to establish norms about what houses should look like. These social norms are reproduced through social networks, where friends and neighbours seem to have a major influence. The social context defines implicitly an imagined standard for houses to which some homeowners make efforts to correspond prioritizing visible renovations. These late renovations many times are not energy-related or even not the most reasonable for energy savings. Social values and norms in communities should express energy efficiency as a feature houses should present to help to boost energy renovation market as well as energy policies need to understand how create and reproduce these social norms in society.

The findings reinforce as well about the necessity of energy policies to work with energy efficiency in homes as fashionable issue to seduce a specific homeowners' groups. On this venture is paramount to work with household product industries, home design and decoration magazines, marketing experts and real estate professionals, that have huge influence and know-how to visually stimulate different homeowners and shape them.

Further studies could deepen knowledge about how the issues that emerged from this study related with tastes, lifestyles and societal norms which influence house energy-related renovations are linked with different householders' characteristics (age, lifecycle and socio-economic features) not exclusively through a qualitative method but making use of a quantitative approach.

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