The role of services in presale purchases:

A field experiment on the French housing market

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Abstract

This paper investigates the effects of services proposed by private developers on buyers' psychological attitudes in the decision-making process for off-plan purchases. We propose a new typology of services based on perceived value. We conducted a field experiment with real buyers who purchased an off-plan dwelling in France, and we measured the causal effects on developer reputation of four service intensity indexes that offer 'visualization', 'customization', 'value enhancement' and 'interaction' services. The results confirm the homebuyer-based typology of services and highlight the mediating roles of two types of attitudes, satisfaction with and trust in developer, to explain the influence on developer reputation. Services designed to improve the perception of the quality of the dwelling itself (visualization and customization benefits) are less effective, and those intended to create a favourable purchase context (value enhancement and interactional benefits) are more influential, emphasizing the benevolent role expected from developers.

Introduction

Urban regeneration has been a great challenge for developed countries, especially France, where public authorities strongly rely on private initiatives to build and sell buildings (Nappi-Choulet, 2006). Because institutional organizations are no longer

willing to be fully involved in regeneration activities (Adair et al., 2003), successful housing construction programmes require private developers to implement appropriate marketing strategies to meet housing buyer expectations (Berry et al., 2002). Levy et al. (2008) suggest that house purchase decisions involve multiple views and, similar to Watkins and McMaster (2011), call for the development of an interdisciplinary research agenda to provide alternative understandings of housing and urban research. Indeed, traditional neoclassical economic housing models based on utility maximization (Isaac and Allen, 1991) and their extension via the behavioural literature fail to explain correctly the homebuyers' decisions (Salzman and Zwinkels, 2017). In addition to physical attributes, which the real estate literature usually considers to be explanatory of buyers' preferences, the adoption of a broader theoretical view should include services and their effects on buyers' attitudes (Barlow and Ozaki, 2003).

Vargo and Lusch (2008) emphasize how marketing strategies have moved from a goods-dominant view, in which tangible outcomes and discrete transactions were central, to a services-dominant view, in which intangibility, exchange processes, and relationships between buyers and firms have become the main focus. Consequently, together with sales, developer reputation and buyer satisfaction represent a new horizon for the future of conducting business in real estate markets (Othman, 2015). In the last twenty years, the theoretical marketing literature has typically identified consumer

satisfaction, trust in the firm and behavioural intentions (recommendation and repurchase) as key psychological buyers' attitudes that would allow scholars to gain a better understanding of the decision-making process (Oliver, 2014; Garbarino and Johnson, 1999).

One recent theatre for this 'customer focus' shift in the housing industry is off-plan home purchases, as such new housing sales have become a leading practice in modern real estate markets (Edelstein et al., 2012; Hui et al., 2016; Lai et al., 2004). Anderson and Srinivasan (2003) and Chen and Dubinsky (2003) found that a firm's reputation can be enhanced by consumer services associated with off-plan purchases when the services create higher satisfaction for consumers. Questions remain regarding whether, in addition to the dwelling attributes, the services used by developers are influential on consumers' attitudes. A better understanding of the homebuyers' cognitive process has also practical implications to categories of service that are worthy of the allocation of resources.

One of the most experienced countries in off-plan housing is France, as approximately 50% of every new housing programme must be presold before construction in order to obtain a loan agreement from banks. To reach the crucial presale ratio, developers have used various service strategies. We propose a typology of four categories of actionable

services, which results from crossing the 'transactional vs. relational' market orientation of developer strategies (Vargo and Lusch, 2004) with the 'good-oriented vs. context-oriented' focus of proposed services (Olson and Jacoby, 1972). The effect of these services on consumers' attitudes (satisfaction and trust) and behavioural intentions is investigated through a field experiment conducted with real French buyers of off-plan housing. The results highlight a significant change in buyers' attitudes when developers propose additional services offering a favourable context for the purchase to increase the 'value enhancement' of the deal and 'interaction' with salespersons. Surprisingly, services focused more on promoting intrinsic quality, 'visualization' and 'customization' services, showed mixed and even negative outcomes on buyers' attitudes. We provide theoretical and practical insights into the understanding of homebuyers' decision making and propose avenues for further research.

Towards a classification of services in housing presales

Few studies on real estate have explored residential preferences (Hoshino, 2011), and the urban literature provides insights through which to better understand future residential satisfaction (Ren and Folmer, 2017) and quality of life (Nowok et al., 2016). However, little is known concerning owner preferences and attitudes during the purchase decision of a new dwelling. Previous urban studies on off-plan purchases have mainly focused on price, and financial risks and benefits have mostly been considered

(Chan et al., 2012; Hui et al., 2016). Within econometric models, very few non-economic types of service benefits that drive buyer satisfaction are included, and these models offer only a partial explanation of homebuyers' decision process. While off-plan sales are an interesting way to share risks between developers and buyers (Chan et al., 2012) and enhance developers' financial viability (Leung et al., 2007), they also offer an opportunity to deploy a marketing strategy for a property aligned with inhabitants' expectations and to improve developers' reputation.

Attitudes reflect the way individuals experience their decision-making process (Oliver, 2014). Improving buyers' attitudes that are likely to increase developers' reputation is a crucial objective, as these attitudes act as indicators of successful 'customer focus' practices, create a solid social network with stakeholders, generate positive word-of-mouth among potential buyers and explain purchase behaviours (Adams et al., 2012; Barlow and Ozaki, 2003, Ajzen and Fishbein, 1980). One way to improve consumers' attitudes and create shareholder wealth consists of proposing appropriate services during the purchasing process (Wiles, 2007). Services are defined as commercial actions proposed by a firm. They describe the set of benefits that can be triggered, consumed, and effectively used by any consumer when they experience a purchase process (Zeithaml et al., 1996). Companies should provide their clients with a satisfactory experience, that is, orchestrate all of the cues that buyers pick up in the purchasing

process. As Verhoef et al. (2009) indicate, the customer experience originates from a set of interactions between a buyer and a good or a company that provokes psychological reactions: the buyer synthesizes his experience within a global perception that highlights the decision process in explaining the attitudes, i.e., level of satisfaction and trust, that are likely to influence behavioural intentions (Garbarino and Johnson, 1999; Homburg et al., 2017).

Interestingly, services associated with a product can be evaluated by their perceived added value, i.e., via the outcomes that consumers truly perceive and experience during the purchase process (Cronin et al., 2000). In the services literature, classifications are mostly general categorizations (e.g., Lovelock, 1983; Cook et al., 1999; Schmenner, 1986), covering broad service industries (e.g., banking). We propose a theoretical categorization of consumer value-based services from two strands of the marketing literature.

The transactional vs. the relational perspective

The distinction between relational and transactional orientations is a well-established dichotomy through which to appreciate market drivers in organizations (Grönroos, 1994; Vargo and Lusch, 2004). Transactional orientation is primarily focused on the exchange of products, as the objective is to maximize sales, and considers mainly the

transfer of the ownership of goods, their physical distribution and treats services as something offered to 'push' a good. Services are designed to reveal a product's qualities or any value advantages that would make the product attractive in a one-time event. One archetypal example could be the sales pitch on shopping channels that uses a ticking clock, incentives or discounts.

Later, this traditional vision moved to a more relational orientation, with a greater focus on the individual than on the transaction itself (Gwinner et al., 1998). Services are then considered to be more customer centric (Sheth et al., 2000) and market driven (Day, 1999), providing relational benefits. The relational orientation requires a firm to devote more resources and activities than core products (goods or services) to satisfy value needs and help customers achieve their goals. Typically, using customers data allows firms to personalize interactions and build relationships.

Extrinsic vs. intrinsic cues model

Buying off-plan housing means that buyers must make a choice about a dwelling that does not yet exist; thus, they must rely on cues to nurture the decision-making process. Cue utilization theory (Olson and Jacoby, 1972) distinguishes between 'intrinsic cues', i.e., product-related attributes focused on characteristics, and 'extrinsic cues', which are related to but not part of the product. As Szybillo and Jacoby (1974) note, intrinsic cues

allow consumers to obtain insights into the physical quality of a product, while extrinsic cues provide contextual pieces of information such as product price or firm image. Therefore, services focusing on intrinsic cues would be mainly designed to gain a better picture of the product's physical features: Visualization and customization tools help to improve the perception of the dwelling. By contrast, services focused on extrinsic cues are more indirect and related to the context of the deal. Research evidence suggests that consumers tend to use both intrinsic and extrinsic cues concurrently when forming attitudes during the decision process (Richardson et al., 1994).

A services matrix results from crossing the transactional/relational orientation of the firm with the intrinsic/extrinsic perspective of the buyer's decision making, revealing four types of services.

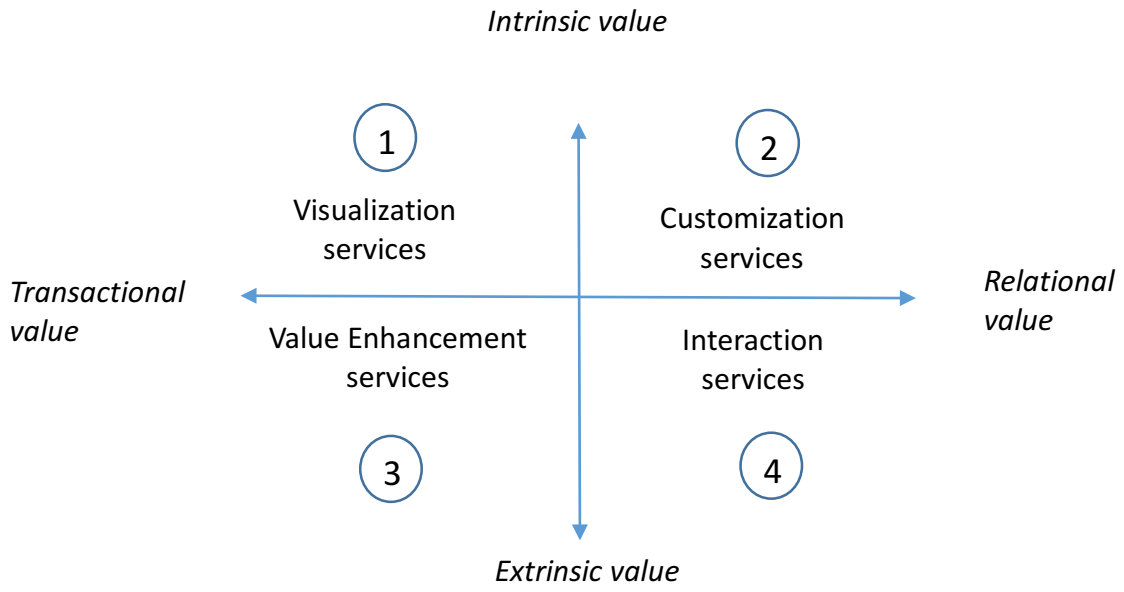

Figure 1 – The classification of services in presale housing purchases

Each category reveals a type of service likely to create valuable benefits for customers as additional services offered by developers. Additional services are presumably valuable actions, deeds, or techniques performed to satisfy the client and differentiate the firm from competitors (Bettman and al., 1998). These services are proposed to enhance perceived value, i.e., the buyer's assessment of the utility of the service (Zeithaml, 1988).

The intensity of services: an application in the French market

For each category, various services can be offered, from usual standard practices to additional premium benefits. Applied to an off-plan housing purchase context, these services can be analysed as follows.

The first category is visualization services, which consist of providing buyers with the most informational and attractive presentation of the product (Then and DeLong, 1999). The standard service in the French market involves showing 2D representations of the future apartment such as a 'PDF' of the floorplans, leaflets and sketches designed by architects. Other benefits can be provided when visualization is enhanced using new technology such as 3D virtual online visits and/or augmented reality in connected showrooms to see how a room looks with specific materials. Technological tools tend to become a major orientation of services in real estate (Spurge and Almond, 2004). Designed to facilitate consumers' immersion in the dwelling, these additional visualization services are intended to increase buyers' appreciation of the selected housing (Paes and Irizarry, 2016).

The second category of services reflects customization services that enable people to be involved in defining the physical features of their future housing, hence in the production of value during the manufacturing process (Normann and Ramirez, 1993). The standard offer contains free basic choices of customized materials for floors and

walls. Additional benefits include the possibility of changing the interior according to the client's wishes, the ability to modify the layout (enlarge a room, remove a wall, etc.), and/or choose top-of-the-line materials (kitchen tiles, wood parquet, etc.). These additional customization services are likely to increase the 'awareness' of being the creator of the product (Franke et al., 2010), i.e., the buyer's feeling of appropriation and ownership.

The third category of services relates to the financial context of the deal, i.e., mainly the way the price is presented and its acceptability (Hui et al., 2016; Berkowitz and Walton, 1980). The usual practice is to charge the client the normal price presented on the listing. Interestingly, price plays two distinct roles in consumers' perceptions: a measure of sacrifice and an informational cue on quality (Völckner, 2008) that 'value enhancement' services can address. Additional value would reduce the perceived sacrifice and give the client the feeling that the transaction is a 'good deal' through special offers (notary fees or kitchen furniture included) and/or enhance the perception of a good financial investment with high expected value and return on investment due to documented proof. These 'value enhancement' services are designed to improve buyers' satisfaction with the price paid (Urbany et al., 1997).

The fourth category includes services dealing with the quality of the interactions between seller and client (Crosby et al., 1990). The standard practice consists of the usual interactions, i.e., mainly at the point of purchase when buyers ask for information. By contrast, additional value would be perceived in high-quality interpersonal relationships through the two following dimensions (Boujena et al., 2009): first, intensity of interactions, i.e., an interaction perceived as frequent and continuing as often as needed (so the seller/advisor is easily reachable by mobile phone or e-mail, responsive after a missed call, etc.), and/or second, the seller's expertise, i.e., a relation with a skilled advisor able to accurately answer questions. These additional interpersonal services are intended to improve buyers' satisfaction with their relation with the seller.

Buyer satisfaction, trust in developer and developer reputation

Our theoretical model is designed to investigate the effect of additional services on 'satisfaction' and 'trust', two attitudes presumed to reveal the psychological path explaining behavioural intentions.

Buyer satisfaction is usually considered an overall evaluation based on the purchase experience since it is closely associated with 'value' and based on the amalgamation of service-quality attributes. Client satisfaction is an immediate post-purchase evaluative judgement that includes cognitive and affective components (Oliver, 1993), and

satisfaction evaluations are experiential in nature, i.e., involving both a process and a final state. Additional services may also influence trust in developer, considered fundamental to achieving success (Gurviez and Korchia, 2003). Trust in a specific firm is defined as the perception of confidence in the exchange partner's reliability and integrity (Morgan and Hunt, 1994). Consumer satisfaction with and trust in a firm are shown to simultaneously influence behavioural intentions (Garbarino and Johnson, 1999). These attitudes are apprehended through the willingness to value and recommend the developer and are related to the developer's market reputation (Hu et al., 2009; Zeithaml, 1996). Thus, we propose to investigate two simultaneous mediation effects as potential explanations of the role of services on developer reputation.

Methodology

Context of the study

The homeownership rate is 65% in France. Being a homeowner is a strong aspiration for French people. In 2018, a poll from the CSA Institute indicated that 56% of actual tenants aspired to buy a home in the following year. New dwellings in France represent approximately 100 000 units, e.g., 15% of total transactions, and new apartments represent 90% of all new sales (French Ministry of Housing, 2017). More than 500

developers exist in France, but the fifteen major firms make more than 60% of the total sales covering all the regions of France.

Field experiment

A field experiment is conducted among real buyers of new off-plan housing due to a partnership with a major developer selling apartments throughout various towns in France. The developer belongs to the national big 10 firms and has approximately 7% of the market share. This field experiment proposes to 'manipulate' services and assess their influence on homebuyers' attitudes in the real world. Field experiments are seen as having higher external validity than other experiments in labs (Lusk et al., 2006).

This national developer sells mainly similar mid-range apartments in downtown and suburban areas of medium-sized towns in an urban regeneration context. The local salesforce has the flexibility to implement, or not, additional services. Using a single developer allows us to control for the similarity of the additional services provided throughout the country, limiting internal heterogeneity. Hence, we control for the type of additional services provided and the possibility that clients receive only standard services (control group). A total of 222 questionnaires were fully completed online by recent buyers of an apartment by presale throughout France, leading to a good response rate that is similar to other experiments (150 observations for Nahmens and Ikuma,

2009; 209 for Tam, 2004). In our sample, the average age of the buyer is 45 years old (*vs. 44 years* for French buyers[1]), the average apartment price is €230,000 (*vs. €227,000*), the average number of rooms is 2.8 (*vs. 2.9*). Thus, our sample is in line with the market at the time of the enquiry.

Manipulated variables

The respondents are asked whether or not they used additional services in each category during their purchasing process. Our survey reveals the following results for the 222 buyers.

Visualization services: 105 buyers declared only standard services. These buyers received only a PDF layout or sketches and viewed a building model in real 3D at the point of purchase. Eighty-two buyers declared only one additional service—they participated in an augmented-reality 3D visit online or they made a visit to a connected showroom—and 35 buyers reported experiences with both of these additional services.

Customization services: 102 clients said they decided only on the standard customization options without extra charge. Seventy-seven clients declared one

[1] National figures are obtained from the French Ministry of Housing (2014).

additional service—they asked for specific personalized materials or for a layout modification—and 43 buyers used both of these additional services.

Value enhancement services: 80 buyers declared only standard services of price presentation. Sixty-two buyers reported one extra service—they received special offers reducing the listing price or received documents and figures enhancing the value of the financial investment. Eighty buyers received both of these extra services.

Interaction services: 33 buyers declared they received only standard services. Fifty-nine buyers received one additional service—the seller was very available, even in the evening or on Sundays if needed, or the buyers interacted with an expert and skilled salesperson who provided general and technical answers. One hundred thirty buyers reported receiving both of these types of extra interaction services.

To verify the structure of all the additional services, a factorial analysis is run on our sample and highlights four axes that explain 74.5% of the variance. The results confirm our theoretical classification including 4 distinctive service strategies (with 25.8% for value enhancement, 19.6% for customization, 16.0% for visualization, and 13.1% for interaction services), allowing us to base our study on these four consistent dimensions. The correlations between these dimensions are very low (from .01 to .27), hence

confirming the independence of each service strategy. We then build an index of service intensity for each dimension with the following values for each category: (1) only standard service, (2) one additional service, and (3) two additional services.

Perceived values and manipulation check

Following the experiment methodology (Perdue and Summers, 1986), we assess whether our index of service intensity increases the different values perceived by the buyers. ANOVAs run on the perceived values (*on a 7-point Likert scale*) confirm that the visualization service index significantly improves *liking the chosen housing* ($F(2, 218)=6.1$, $P<.003$); the customization service index significantly improves the *feeling of ownership of the housing* ($F(2, 218)=2.4$, $p<.05$); the value enhancement service index significantly improves *satisfaction with the price paid for the housing* ($F(2, 218)=63.7$, $p<.001$), and the interaction service index improves *satisfaction with the relation with the salesperson* ($F(2, 218)=57.1$, $p<.001$). Consequently, our ex post manipulation functions properly and allows us to run the mediation procedure.

Dependent variables

Buyer satisfaction: As suggested by Fornell et al. (1996), we directly measure satisfaction with the purchase of the product—*I'm satisfied with buying this property*—

and following Homburg et al. (2006), we measure the direct cognitive dimension of confirmation/disconfirmation of expectations—*This housing perfectly meets my needs*. Moreover, we consider the affective dimension since affect is particularly important in the early stages of the formation process when customers have little experience related to the good (Homburg et al., 2006). The affective dimension is measured via two items—*One can say I like my future property* and *I will enjoy my housing*. The internal consistency of this 4-item satisfaction scale is good (alpha=.86).

Trust in developer: Trust in developer is captured via a slight adaptation of the existing scale for trust in brand (Gurviez and Korchia, 2003). This scale includes 8 items reflecting credibility (the capacity of the firm to offer a technical response due to expertise), integrity (the attribution of loyal motivations to claim respect and honesty), and benevolence (the acknowledgement of a durable consumer orientation). The internal consistency of this trust in developer scale is good (alpha=.86).

Developer reputation: Following Cronin et al. (2000), the measures of behavioural intentions reflecting developer reputation are phrased as recommendation—*Would you recommend this developer to your relatives?*—and repurchase—*In the future, if you have a new purchase project, would you buy housing from this developer?*—to which

we added word-of-mouth—*How satisfied would you tell others you are with this developer?* The internal consistency of this 3-item reputation scale is good (alpha=.84).

Control variables

To avoid potential confounding effects caused by the intrinsic perceived quality of the dwelling, we control for the nominal price, the price per square metre and the perceived quality (Holbrook and Hirschman, 1982) via a functional dimension—*My apartment will be convenient*—and an emotional dimension regarding the dwelling itself—*My apartment will be nice.* Additionally, we measure the view inside (Kaplan, 2002)—*I will like the view from the apartment*—and the perceived culture and history of the area (Evans (2005)—*I bought in an area embedded in a particular culture and history*. These items (convenience, aesthetic, view, etc.) are common variables in hedonic models of house prices. Additionally, we include perceived self-expertise—*One can say I'm an expert in real estate*—and perceived time pressure—*I was in a hurry when I bought this apartment*—two main psychological features that may influence buyer attitudes (Larceneux et al., 2015). We also measure the external incentives of the purchase, a tax reduction—*To what extent would you say your purchase is driven by tax reduction motivation?*—and the likelihood of renting out the home in the future—*Do you plan to rent the housing purchased?* All of these psychological items are measured

via a 7-point scale. We then include income (in five categories) and age as demographics variables.

Empirical results

Causal paths and mediation tests

The testing of hypotheses requires a model of parallel mediation that allows for the impact of several simultaneous mediators and a bootstrap technique (n=5000) in order to determine the precise nature of the direct and indirect effects (Hayes and Scharkow, 2013), as the following regressions indicate.

$M1 = \beta_1 + a1X$ (1)

$M2 = \beta_2 + a2X$ (2)

$Y = \beta_3 + cX + b1M1 + b2M2$ (3)

With

- Xi represents the *service intensity index*
- Y represents *developer reputation*
- M1 represents *buyer satisfaction*

- M2 represents *trust in developer*

And

- c refers to the *direct effect* of Xi on Y
- d refers to the *indirect effect (d=a1b1 +a2b2)*, the effect Xi on Y explained by Mi

Wu-Hausman endogeneity tests report that customization is an endogenous variable (some clients might choose additional customization when they are very satisfied). Therefore, we use a valid instrument instead of the initial customization variable[2]. Testing the mediation effect of Mi leads first to testing the effect of Xi on M1 (model 1) and simultaneously the effect of Xi on M2 (model 2). Second, we test the direct effect of Xi on Y, controlling for M1 and M2 indirect effects (Model 3). The results of the regression models are shown in Table 1. The second column of each mediating variable shows the indirect effects of the service indexes on developer reputation via satisfaction and trust and their significance (with 95% confidence intervals excluding zero).

[2] The variables are (1) the purchaser's motivation for a tax reduction and (2) the likelihood of renting the home in the future. The results show that the instrument is valid for developer reputation (Sargan $Chi^2(1)=.42$, $p=.515$) and consumer satisfaction (Sargan $Chi^2(1)=.08$, $p=.777$).

	Buyer satisfaction		Trust in Developer		Developer Reputation
	Model 1		Model 2		Model 3
	direct effect	indirect effect on developer reputation	direct effect	indirect effect on developer reputation	direct effect
R	.713		.748		.794
R sq	.509		.559		.630
Constant	2.450***		1.955***		ns
Visualization services	ns	ns	ns	ns	ns
Customization services	.226***	+.062 [.010, .157] (1)	ns	ns	-.228**
Value enhancement services	.222***	+.077 [.023, .155]	.164***	+.149 [.079, .240]	ns
Interaction services	ns	ns	.300***	+.231 [.124, .392]	.341***
Convenient apartement	.198***	ns	ns	ns	ns
Nice apartment	.135**	ns	.230***	ns	ns
Nice view	ns	ns	ns	ns	ns
History of the area	.117**	ns	ns	ns	ns
Price per sq	ns	ns	ns	ns	ns
Nominal price	ns	ns	- .160**	ns	ns
Self-expertise	ns	ns	ns	ns	ns
Time pressure	ns	ns	ns	ns	ns
Income	ns	ns	ns	ns	ns
Age	ns	ns	ns	ns	ns
Buyer satisfaction	*na*	*na*	*na*	*na*	.320**
Trust in developer	*na*	*na*	*na*	*na*	.850***

First, in line with Garbarino and Johnson (1999), we note that developer reputation is influenced simultaneously by buyer satisfaction and trust in developer, the latter being twice as important as the former. However, the results surprisingly show that the 'visualization' services index does not increase either buyer satisfaction (model 1) or trust in developer (model 2). In addition, more visualization services do not foster client recommendations of the developer as a direct effect, and the indirect effect of buyer satisfaction and trust are not mediating paths to explain developer reputation. One explanation of this non-significant result might be the hidden effect of moderating variables. For instance, Zumpano et al. (2003) showed that people who do not live in the same city as their purchase face higher information costs and are therefore more likely to appreciate technological tools than local buyers who have a better idea of the housing location. To test this alternative explanation, we use two operationalizations of distance from the property purchased. The first variable is whether or not the respondents were local buyers (item: *Did you live in the same city of the apartment you bought?)*, and the second is the extent of the respondent's knowledge regarding the location (item: *Before you bought your housing, did you know the place personally?*). Interestingly, the results show no moderating effect for local vs. non-local buyers but reveal a significant influence of previous knowledge of the location. Visualization services have no effect when buyers declare good knowledge of the location, but for people with low knowledge, additional visualization services significantly increase trust

in developer (β=.150, p=.027). Moreover, trust is a positive mediator of the effect on developer reputation (e=.130, [.031; .275]). Eventually, visualization services used to obtain a better picture of the future dwelling than can be obtained from sketches tend to enhance trust and produce positive recommendations only among clients who do not know the housing location very well.

Second, the 'customization' services index improves buyer satisfaction, which in turn influences developer reputation via a significant indirect effect, whereas trust in developer is not improved. Moreover, a surprising direct negative effect of these services occurs on developer reputation. One explanation might be that extra customization services require clients to pay additional charges they do not expect (Hofman et al., 2006). Apparently, this sacrifice is negatively perceived and significantly decreases the benevolence the developer is supposed to show to its clients, since perception of the net value reveals a tradeoff between the benefit relative to the sacrifice buyers perceive (Monroe, 1979). If this explanation is valid, we should find a higher sensitivity among people with low financial potential. The mediation models show that for households earning more than 6,000 euros per month, the negative effect disappears. However, for those earning less than 6,000 euros, the negative impact of customization services on developer reputation is confirmed (β=-.184, p=.034). This result could indicate that less wealthy clients are satisfied with very good customization

but blame the developer for the associated cost. These results support the moderating effect of the cost issue induced by the additional charges needed to obtain better customized materials.

Third, the 'value enhancement' services index significantly increases buyer satisfaction and results in slightly less trust in the firm. Moreover, satisfaction and trust are both significant mediating variables on developer reputation. The effect of the value enhancement benefits reveal complete mediations, i.e., a path fully explained by the two psychological measures with no remaining direct effects on reputation.

Fourth, the 'interaction' services index does not influence buyer satisfaction, which is more related to dwelling expectations. However, this index strongly increases trust in developer. Additionally, trust is a mediator that partly explains the influence of interactions on developer reputation. In addition, these relational services have a direct positive effect on developer reputation, which remains not explained by trust. These interactional concerns are the most influential for creating good reputation.

Finally, controlled for the significant dwelling attributes, the processes by which additional services have an impact on developer reputation depend upon the services triggered. Complementary studies found no significant interaction effects between the services. Overall, services focused on the intrinsic dimension of the dwelling, either enhancing visualization or customization, do not truly influence developer reputation.

Conversely, services supporting a favourable context for the deal, either via value enhancement advantages (transactional perspective) or interpersonal relationship (relational perspective), have a positive effect on reputation.

Conclusion and discussion

To gain a better understanding of the housing choice process, a new, more interdisciplinary, step was proposed by Watkins and McMaster (2011). Our research showed that the marketing literature can help to better understand the homebuyers' attitudes and their decision-making process. Beyond the traditional strategy consisting of offering the right good in the right place, creating greater benefits for customers has become a relevant objective in the marketing literature (Vargo and Lusch, 2004). Verhoef et al. (2009) indicate that service interfaces (such as the service person, technology, customization, etc.) are key components in creating a customer experience that leads to economic value for firms.

As new dwellings are sold off-plan, buyers are unable to experience the feelings generated by their concrete attributes. Instead, buyers must rely on perceptions formed from the marketing material and discussions with sales agents. Nurtured by the consumer behaviour literature, the theoretical perspective of this study consists primarily of broadening the traditional way of considering services and proposing a

classification based on consumers' perception of valued intangible outcomes. Four kinds of services, namely, visualization, customization, value enhancement and interaction services, are likely to influence homebuyers' decision making. Our field experiment, conducted to capture reliable psychological perceptions of real buyers in France, confirms that all services are consistently perceived in four conceptual independent categories. Second, the empirical analysis of the influence of the intensity of the services in each category contributes to a better understanding of the theory on psychological paths explaining homebuyers' decision making.

First, additional services consist of offering a better visual presentation. These services improve trust and developer reputation only for homebuyers who do not have experience with the location of the building (such as private investors). This surprising result is not truly in tune with the dynamics of the industry, which is incorporating progressively more technology as part of its updated support for client purchases. As Spurge and Almond (2004) note, developers feel compelled to keep abreast of technological advances, creating new standards for presenting goods. There might be many reasons for this low technological effect on client attitudes. First, technological tools may not work properly, leading to a negative consumer experience, and/or they may be perceived simply as gadgets (Langlotz et al., 2013). Consequently, it might be worth verifying whether sellers use these services regularly and efficiently. However,

the counter-intuitive effect of technological tools is in line with some research and professional witnesses (Tarafdar et al., 2015). For instance, Meuter et al. (2003) found that 'technological anxiety' influences usage patterns and satisfaction levels. Moreover, sellers do not always make good use of technology tools because these can create 'techno-stress,' which is caused by the self-efficiency of tools and technology dependence (Shu et al., 2011) or low technology readiness (Kuo, 2013). Therefore, the cost/efficacy ratio must be questioned, particularly for smaller-scale developments for which the cost of a 'display unit' might be prohibitive compared to the consumer-perceived value. The economic interest in technology would benefit from more precise exploration in future studies on real estate.

Second, customization has an unexpected negative effect among buyers. However, this result concerns less wealthy clients who may expect customization options to be included in the purchase price. Indeed, scholars have shown that higher prices may create a negative tradeoff for customers who are seeking an optimal combination of the price and value of a good (Aron et al., 2006). In this case, clients blame the developer, and trust in developer is diminished. Another explanation is that clients may have unrealistic expectations concerning customization (specific materials not available, impossible layout changes, etc.), which creates negative attitudes towards the firm. Special commercial offers could be developed to allow buyers to customize their home.

Customization is not a minor point since it enables pride and feeling of ownership (Franke et al. 2010), which can be a source of residential satisfaction. Indeed, as revealed by the endogeneity tests, some inverse effects can occur when satisfaction with the product influences the use of a service. In this case, cognitive dissonance might occur, and homebuyers may act (choice of customization for an additional charge) to validate their previous overall attitude, i.e., satisfaction with the product, creating a reinforcing loop. Further research might explore this effect either in a qualitative or quantitative way.

Third, value enhancement services strongly influence developer reputation, and this effect can be explained by the improvement of both satisfaction and trust. These value enhancement services consist in a relevant presentation of price and allow consumers to reduce the perceived sacrifice and increase the perceived value of the investment. Consequently, the increase in both the transaction and the acquisition utilities (Urbany et al., 1997) contribute to seeing the property as a valuable financial asset, which results in favourable client attitudes. This strategy may thus initiate a virtuous circle for the developer because it could allow for a price premium in the future (Best et al., 2015).

Fourth, our strongest result indicates a real need for an interactional relation between clients and sellers, the latter becoming more personal advisors than salespersons. Even

in a transactional context without repeat purchases, a service strategy embedded in a 'human relations' orientation that offers a favourable context to the buyer turns out to be the most efficient strategy to increase trust and reputation for the developer. Hence, sales strategies would not have to focus on reducing the cost of human resources in contact with buyers but should instead emphasize the importance of a supportive relationship with available and very skilled advisors. Furthermore, a higher level of availability and skills may be alleviated by the appropriate use of technological tools: competent advisors could identify incentives for using technology such as digitalization or dematerialization (paper-free process) in order to be more responsive and competitive (Gatignon and Robertson, 1989). However, salespersons with advisory skills can demand a wage premium, and the final cost/efficiency question needs to be evaluated.

Finally, in the French building industry, the benefits provided by additional services focused on the intrinsic value revealing the quality of the dwelling appear to not truly improve consumer satisfaction or trust. An explanation could be that the initial standards are already at a high level and properly address this issue. In other words, there are already good standard representations of the property and customization. However, our results show interesting effects for services creating extrinsic value that produce a favourable context for the purchase through value enhancement benefits and/or a personalized interaction with a seller. Strategies for intrinsic-oriented services

seem useful to avoid creating dissatisfaction, while strategies for extrinsic-oriented services tend to create satisfaction and trust. Good reputation will result from the latter. This outcome invites the literature to be less focused on the recent transactional/relational approach and to rediscover the relevance of the cue utilization model to emphasize the role of the context and the key influence of satisfaction and trust to understand the decision making.

Rooted in emerging methodological trends in behavioural economics (Black et al., 2003), our approach is original insofar as a field experiment overcomes the problem of detecting causality. However, our study has some limitations. First, the study is limited due to the size of the sample, even if it is similar in scope to other comparable studies and broadly representative of the real market. Another limitation is that only one major developer is considered in our experiment. This research could be replicated with other developers, in other countries and with other 'project homes' in the new greenfield. Moreover, the market context could influence satisfaction and trust. Using different periods of time could highlight different consumer expectations. Further research could also explore more directly the effect of these services on the actual probability of buying housing.

Our model shows that services influence market reputation through consumers' attitudes. However, it is the first part of a loop through which reputation might, in turn, influence consumers' attitudes. Today, consumer reports, published polls and specific websites (immodvisor.com, opinionsystem.fr in France) provide reputation 'scores' for real estate professionals. These data create an e-reputation that shapes the corporate reputation, build the brand equity and influence stakeholders (Gatzert, 2015). For instance, Chau et al. (2007) found that off-plan moral hazard risk may be offset by developer reputation. Interesting avenues for real estate research are exploring how brand equity influences homebuyers' attitudes and developers' financial performance (Baldauf, 2003) and how brand equity allows the assessment of subsequent employee effects and organizational benefits (King and Grace, 2010). Following Shah et al. (2006), we think that the shift towards homebuyer centricity invites a reshaping of the structure, culture, and process of the housing industry to build also a solid brand reputation.

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