

# IMPERFECT INFORMATION AND ENTREPRENEURS' CHOICE ON PROVISION OF HOUSE FITTINGS

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## Abstract

*Entrepreneurs have always been regarded as talented individuals who can bear the risk of running a business. They can reap a huge profit in return for their hard work. In mainland China, most housing entrepreneurs do not provide housing with fittings. There are no floor or wall fittings, kitchen appliances or bathroom fittings. Home buyers only receive bare units when developers finish their job. What is the motive behind this choice? This paper analyses the motive based on imperfect information and entrepreneurs' risk-averse behaviour.*

**Keywords:** *imperfect information, entrepreneur, house fittings*

*"[I]nformation is random and miscellaneous. We are flooded by messages from the instant everywhere in excruciating profusion... The latest information on anything and everything is collected, diffused, received, stored, and retrieved before anyone can discover whether the facts have meaning" (Boorstin, 1979)*

## 1. Introduction

An entrepreneur combines the resources of land, capital and labour to produce a good. He is the major driving force behind production of goods. As there is no guarantee of making a profit and imperfect information exists in our business world, the entrepreneur assumes the role of risk bearer. At the same time, like other business persons, he cannot accept a job that has too high a risk of loss (Brue et al., 2009).

Running a real estate business is risky; it requires heavy capital investment in land, professional training and recruitment. Nevertheless, this huge expenditure does not guarantee a great return, and it is possible to suffer a substantial loss if the entrepreneur makes a wrong decision. Provision of home fittings is one of the risks that the housing entrepreneur faces. Some home buyers may dislike the fittings and thus decide not to purchase the home. In Hong Kong, land supply is scarce, but demand is huge (7 million people live in a small city with a hilly landscape). Land price occupies a relatively large proportion of the costs of dwelling production. Provision of a wash basin, towel ring, water closet, and other fittings only uses a small proportion of the total costs of construction. Entrepreneurs thus focus on land purchases more than provision of fittings. The risk of installing fittings that do not suit the taste of customers is not very high. Furthermore, many developers have run their business for many years and have accumulated sufficient knowledge on buyers' taste. Provision of fittings to customers is common. Yet, in mainland China, especially in areas of low land costs, costs of fittings have become relatively high. The risk of supplying fittings that prospective owners dislike is higher. Many entrepreneurs

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do not wish to take the risk of providing fittings. This paper aims at reviewing the asymmetric information and risks that housing entrepreneurs face in mainland China and analysing entrepreneurs' decision in response to this risk.

## 2. Assumptions, functions and factors affecting the supply of entrepreneurs

Austrian economists postulate that no individual is homogeneous. Individuals act according to their experiences and knowledge. Hence, each of us foresees and predicts the future in different ways (Yu, 2009). It is also assumed that people are endowed with different levels of innate talent; the more talented group become entrepreneurs and hire the less talented in equilibrium (Dias and McDermott, 2006). The when and where questions in entrepreneurs' business ventures are mainly determined by the social context, organisational norms, culture, history and power considerations (Vandenbosch and Huff, 1997). Entrepreneurs in our society combine means of production, and their acts are crucial to economic development (Shanea et al., 2003).

Entrepreneurs also deal with the "who" question. They create and organise new companies and hire workers with human capital. They also encourage workers to invest in their own education so that they can move into the modern production sector. Had entrepreneurs not existed, these educated workers might have had to take jobs that make inadequate use of their skills. They may not have been able to earn a high salary. The literature also reviews the importance of entrepreneurs in individuals' learning (Shanea et al., 2003).

Entrepreneurs also play a major role in assuming a large part of firms' risk (Carland et al., 1984). Theorists of entrepreneurship view entrepreneurs as individuals who bear residual uncertainty in running a business. Entrepreneurs must accept uncertainty in career security, family relations and psychic and financial well-being (Shanea et al., 2003). Starting from the moment an entrepreneur realises that their ideas possess market potential, they face the challenge of venture finance. Though some firms' business and financial strategies are laid out and agreed between the entrepreneur and interim investors, others depend on the entrepreneur only in seeking financial and strategic advice. This may increase entrepreneurs' momentum to raise any additional funds beyond their personal means, possibly from angel investors (Williams et al., 2006).

Concerning the supply of entrepreneurs in our market, some concur that the supply constitutes a key bottleneck to development and is inelastic in nature. Others hold the view that productive entrepreneurs can be summoned relatively quickly if the rules and institutions they determine are conducive to such activity because supply is always latent in the population (Dias and McDermott, 2006).

Similar to any other type of entrepreneur, housing entrepreneurs combine the factors of production, and they have to make decisions on what, how and for whom to produce. They also have to accept the financial risks, e.g., the global financial crisis led to a drop in sales of newly built residential units.

## 3. Information, imperfect information and asymmetric information

Traditional thinking concurs that uncertainty creates the need for information processing. By way of proper problem formulation, information helps executives to create and select the appropriate course of action. Information also helps to stimulate creativity, monitor performance,

determine environmental trends, generate scenarios and control activities. Furthermore, information is the major source of fuel in planning and strategising. After all, executives simply cannot function without information (Vandenbosch and Huff, 1997). Although “information” is an important subject in many disciplines, it does not give rise to any economic interest by itself (Arrow, 1996). In a world of positive transaction costs, imperfect information exists, and information has to be transmitted from one who knows it well to a receiver. Nevertheless, information sometimes backs up among information holders who have no use for it and fail to transmit it to individuals who wish to receive it (Friedman and Friedman, 1990). Therefore, it is suggested that asymmetric information exists between sellers and purchasers (i.e., some sellers hold private information) (Narayanan et al., 2000, Lin et al., 2009). Information asymmetry indicates that market participants possess unequal sets of information (Lu et al., 2010). Information is inseparable from the concept of agency (MacFarlane, 2003), even though there are many ways to reduce information asymmetry (Narayanan et al., 2000). The associated unobserved variables under asymmetric information may affect the cost and benefit (Arrow, 1996), e.g., investors can reap more profit by acquiring rates of return information (Arrow, 1987); however, it may also cause home investors to suffer losses.

<b>Business activity</b>	<b>Asymmetric information example</b>
<b>Bank</b>	A borrower knows more than bankers about his or her chance of default (Wolfstetter, 1999).
<b>Firm investment</b>	Although some investors may have private information about a firm’s fundamental value, conflicting interests of informed and uninformed traders not only increase a firm’s value uncertainty but also make investors take a conservative view on the firm’s future value (Lu et al., 2010).
<b>Higher education</b>	The department head knows less about a perspective teaching staff’s ability and attitude than the professors themselves (Wolfstetter, 1999).
<b>Agriculture</b>	The tenant who rents a piece of land knows the soil quality better than the landlords do; he is in the best position to estimate the rent that he should pay (Braverman and Stiglitz, 1986).
<b>Stock</b>	The managerial staff in a company knows more information about the company than other stockholders (Narayanan et al., 2000).
<b>Housing</b>	Residential unit purchasers do not hold the same information as builders do (Chau et al., 2007).

Table 1 Examples of asymmetric information

#### 4. Risk-averse human behaviour

Risk has been identified as the potential for negative consequences of an activity, a combination of exposure and hazard as well as the possibility of damage, loss or injury. Recent literature focuses on the two-edged nature of risk, such as challenge and threat, and the probability that something will happen that will affect the original objectives of an act. Risk can be managed by easing and control, quantification and identification, catastrophe planning and financing (Li, 2010). The risk attitude of an individual affects his behaviour and plays an important role in his decision making (Richard, 1975, Xiao and Yang, 2008). For example, a retailer under demand

uncertainty changes its pricing, purchasing, and service investment behaviour (Xiao and Yang, 2008).

Are people risk seeking or risk averse? Many papers concur that humans are risk averse. This premise lays important ground for many business activities (Arrow, 1971, Grossman and Stiglitz, 1980), such as hedge funds, derivative sales, and agency contracts. Individuals who choose not to act on an actuarially fair activity are classified as risk averse (Arrow, 1971). Though risk attitudes can also be explained by utility curvature, risk aversion holds if and only if the utility function has a concave shape, implying the basic assumption of diminishing marginal utility. Nevertheless, some previous research falsifies expected utility systematically as a descriptive theory of individual decision making, and extensive experiments have shown that risk aversion is more than the psychophysics of money. Furthermore, “this descriptive inadequacy has become the major inspiration for alternative theories development on individual decision making under risk” (Halek and Eisenhauer, 2001). Risk-averse home purchasers, therefore, prefer the option of “tried and true” (Koebel et al., 2003).

To minimise perceived risk, consumers rely on various risk-reduction methods, e.g., reliance on brand names, sharing risk with others and selecting a less risky choice.

Method to lower risk	Example
Brand name	Searching for better choices from formal and informal sources, using brand image/reputation or price as a quality guide, or shopping only in stores with a high-quality image .
Risk sharing with others	Partnership, risk sharing contract, contracting and subcontracting.
Selecting the less risky choice	Becoming an employee instead of an entrepreneur, purchasing insurance, choosing compromising brands. Marketers have also successfully made use of tools such as money-back guarantees, warranties, and free trials to influence consumers' risk perception.

Table 2 Methods of lowering risk (Li, 2010)

The degree to which people are risk averse, however, is not constant. Research has shown that people who are facing income uncertainty or constrained liquidity are relatively more risk averse (Richard, 1975). On the contrary, Halek and Eisenhauer (2001) postulate that rich people are more risk averse. Other researcher finds that men are less risk averse than women are (Schubert, 2006). Similarly, many auction theorists view the principal as considerably more risk averse than its trading partners. For instance, a privatisation agency might be more risk averse than the bidders in a transitional economy (Eso and Futo, 1999). Some companies hold more cash solely because their risk aversion on the part of management is above average in the aftermath of bankruptcies in previous years (Xiao and Yang, 2008).

Whalley (2010, forthcoming) models the investment choices of a risk-averse entrepreneur in an R&D project. Risk aversion is more likely to be an important factor in investors' decision making in smaller, privately owned firms than in large public corporations. The model is particularly relevant to, for e.g., research-based start-up firms.

## 5. Loss-averse human behaviour

Apart from the notion of risk aversion, others have used loss aversion within Prospect Theory to describe decision-making behaviour. Loss aversion has gained recognition in economics as an important explanation for many phenomena that remain paradoxes under traditional choice theory, such as the endowment effect and the equity premium puzzle (Tovar, 2009). Loss aversion is distinguished from risk aversion by the presence of a reference point that determines whether a payoff is perceived as a loss or a gain and by an abrupt change in the slope of the utility function at the reference point (Wang et al., 2009). Loss aversion differs from risk aversion in that, first, it implies a kink in the utility function and hence generates a pronounced asymmetry even for arbitrarily small losses and gains. Second, empirical results also support the theoretical prediction that the marginal value of both losses and gains drops with their size; however, risk aversion does not usually display a diminishing sensitivity on losses. Finally, as Tovar (2009) suggested, “a traditional concave utility cannot generate this result under loss aversion; since the level of income is similar in both sectors, both would get the same protection...provide evidence that value or utility is determined by changes in wealth... the disutility that one experiences in losing a sum of money is greater than the pleasure associated with gaining the same amount. This is called loss aversion and it leads to a utility function that is steeper for losses than for gains...”

## 6. Housing entrepreneurs' decisions on provision of fittings

In many places, including Hong Kong, housing entrepreneurs provide elaborate wall treatments, window frames, cupboards, floor tiles and electrical fittings. In some cases, developers also provide heated floors and wine storage. There is, however, a completely different norm in mainland China. For instance, the majority of developers in Beijing and Nanjing sell roughcast flats to home purchasers. There are no towel rings, kitchenwares, cupboards or basic bathroom fittings (Li, 2009). Table 3 shows the percentage of bare flats in China from 1997 to 2008. Among all first hand residential units sold in Beijing districts, more than 70% of them were bare units. Table 4 displays a similar phenomenon. Among all the residential developments available for occupation in 2004-2007 in Nanjing, 90% of them were bare units. This finding simply implies that entrepreneurs in Beijing and Nanjing do not spend a penny on house fittings.

District	Bare flats	Total	Percentage of bare flats	District	Bare flats	Total	Percentage of bare flats
Da Xing	140	165	85	Xuan Wu	88	114	77
Feng Toi	260	305	85	Hai Dian	379	470	81
Shi Jing Shan	48	54	89	Mi Yun	43	52	83
Xi Cheng	62	82	76	Chong Wen	62	74	84
Huai Rou	37	44	84	Tong Zhou	194	219	89
Chong Ping	160	182	88	Chao Yong	618	853	72

Yan Qing	17	24	71	Dong Cheng	59	79	75
Fang Shan	83	90	92	Shun Yi	102	126	81
Others	92	110	84				

Table 3 Percentage of bare flats in Beijing from 1997 to 2008 (Li, 2009)

District	Total of residential developments available for occupation in 2004-2007	Percentage of bare flats
Xia Guan	24	91.6666667
Da Han	4	50
Lu He	12	91.6666667
Xuan Wu	35	91.4285714
Bai Xia	32	92.3076923
Jiang Zhu	133	98.4962406
Yu Hua	34	100
Jian	71	92.9577465
Pu Kou	60	96.6666667
Qian Huai	42	100
Gao Chun	3	100
Qi Xia	50	100
Li Shui	11	90.9090909
Gu Lou	65	93.8461538

Table 4 Percentage of bare residential units in Nanjing (Li, 2008)

What is the major reason behind this finding? China is a newly emerging real estate market. There were no private companies prior to 1978 due to the planned economy. Many entrepreneurs are thus newcomers in the industry. They are not experienced sellers with plenty of information for predicting buyers' tastes in house fittings. In sharp contrast, repeated sales activities in other places, such as Hong Kong, Boston, and Australia enable local housing entrepreneurs in these locations to learn from their mistakes. No matter what, housing entrepreneurs are risk and loss averse. They all aim to maximise their profits and minimise the risk. To minimise risk, these entrepreneurs choose not to provide any fittings. Furthermore, traditional entrepreneurs relied upon

many sources of external financing: debt, venture capital, private equity and public stock offerings. Investors who commit funds to business start-ups expect to receive back their invested sum of money along with a handsome return. Entrepreneurs must ask themselves if their goals are congruent with those of possible investors (Williams et al., 2006). If housing entrepreneurs make an incorrect decision, such as putting undesirable fittings into their residential units, it will affect the other investors as well. Shareholders who invest in these companies will develop negative opinions about these entrepreneurs. Potential joint ventures may also become futile if the housing entrepreneurs have a history of incorrect decisions.

## 7. Conclusion

All entrepreneurs share one characteristic: they bear risk and earn some profit in return. Housing entrepreneurs are risk averse as well. They attempt to find ways to reduce their risk. Housing entrepreneurs in mainland China who provide bare units provide a vivid example of risk aversion.

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