A VALUE CHAIN FRAMEWORK FOR AFFORDABLE HOUSING IN EMERGING COUNTRIES

Bruce Ferguson

Housing the low/moderate-income majority of developing countries creates enormous potential demand for many types of goods and services (World Resources Institute and International Finance Corporation, 2006) – from cement to home credit. However, designing, marketing, and delivering products for this market requires understanding the settlement and shelter problem of low/moderate-income families.

Currently, one-sixth of the world's population – one billion people – live in urban slums in emerging countries. In addition, virtually all net growth of 2.6 billion in world population between now and 2050 is projected to occur in these cities. In effect, relatively poor nations will build the equivalent of a city of more than one million people each week for the next 45 years. Absent major change, the bulk of this new development will occur informally without integration into mainstream markets at tremendous public and private cost. A long history of government slum upgrading, sites and services, and other heavily-subsidized programs offers little hope for dealing with this emergency. While government inevitably plays an important function, new market-based approaches to affordable housing are essential to reach the massive scale commensurate with the enormous demand (Ferguson, 2007).

This issue of Global Urban Development Magazine has resulted from a collaboration of this magazine with Ashoka – an international organization devoted to social entrepreneurship – to assemble a series of papers that focus on the role of the private sector in meeting the affordable housing and urban development challenge. As a preface to these papers, this introduction presents a framework for analyzing the complex housing problem and the extremely high-cost methods used by most low/moderate-income households in emerging countries to get shelter. This examination suggests that modern management strategies well suit the challenge of squeezing the costs out of the low/moderate income housing process through creating “value chains” consisting of innovative packages of products and services. Involving citizen-sector organizations (variously called “NGOs”, “nonprofits”, and “the social sector”) in marketing and delivery can build the trust necessary for modern companies to reach low-income people with these housing packages, resulting in “hybrid” value chains (Ashoka, 2007).

A Hybrid Value Chain Framework for Meeting the Affordable Housing Challenge

Roughly 70% of the world's population in developing countries (Ferguson, 2003) access shelter through “progressive housing.” In high-income countries, a sophisticated system of mortgage finance, title companies, real estate brokers, developers, and others allows the great bulk of households to purchase or rent a complete unit.

In contrast, most of the low/moderate-income majority of emerging nations cannot afford a mortgage loan to purchase the least expensive commercially-built home, formal rental markets are poorly developed, and – instead – households must build their housing themselves. This “self built”, “incremental”, or “progressive” housing accounts for the bulk of housing investment in most emerging countries.

For example, Table 1 analyzes investment in new housing in Brazil.
**Table 1 - Methods of Production and Finance of New Brazilian Housing Per Annum**

<table>
<thead>
<tr>
<th>Production:</th>
<th>a. Progressive housing</th>
<th>b. Industrialized construction</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Self financed by household</td>
<td>R. $48 billion (62%)</td>
<td>R. $22 billion (30%)</td>
<td>R. $70 billion (92%)</td>
</tr>
<tr>
<td></td>
<td>700,000 units (64%)</td>
<td>100,000 units (9%)</td>
<td>800,000 units (73%)</td>
</tr>
<tr>
<td>2. Private sector finance</td>
<td>R. $0.7 billion (0.9%)</td>
<td>R. $0.4 billion (0.5%)</td>
<td>R. $1.1 billion (1.4%)</td>
</tr>
<tr>
<td></td>
<td>20,000 units</td>
<td>50,000 units (5%)</td>
<td>70,000 units</td>
</tr>
<tr>
<td>3. Public sector finance</td>
<td>R. $3 Billion (4.1%)</td>
<td>R $2 billion (2.7%)</td>
<td>R. $5 billion (6.8%)</td>
</tr>
<tr>
<td></td>
<td>130,000 units (12%)</td>
<td>100,000 units (9%)</td>
<td>230,000 units (21%)</td>
</tr>
<tr>
<td>Totals</td>
<td>R. $52 billion (67%)</td>
<td>R. $24 billion (33%)</td>
<td>$R. 76 billion (100%)</td>
</tr>
<tr>
<td></td>
<td>850,000 units (77%)</td>
<td>250,000 units (23%)</td>
<td>1.1 million units (100%)</td>
</tr>
</tbody>
</table>


In terms of volume, the mode of housing that is the norm in advanced industrialized countries – industrialized construction financed by credit – accounts for only $2.4 billion Brazilian Reais (Box 2a + Box 2b; one US dollar = 3 Brazilian Reais during this period) and 3.2% of total housing investment. In comparison, self-financed progressive housing accounts for R. $48 billion (Box 1a) and 62% of new Brazilian housing investment.

As many of the steps occur outside of formal institutions and legal markets, the bulk of progressive housing is “informal." In particular, the start of the progressive housing process through land invasions and informal subdivisions typically places the resulting neighborhoods outside of the formal land-use and building process.

Home developers seeking to go downmarket have also incorporated progressive-building techniques into their business. For example, most commercially-built moderate-income housing in Latin America consists of a core expandable unit without fixtures and finishing that families must expand and complete, typically in programmed steps.

Progressive housing represents the only affordable approach to shelter for most low-income households and many moderate-income families. This method often meets the immediate needs of these households far better than publicly-sponsored formally-developed housing. The advantages of progressive informal development typically include much quicker access, lower entry costs, more flexible monthly payments, location closer to jobs better suited to households’ survival strategies, the ability to customize the construction of units to fit households’ needs and resources, and proximity of friends and family. Not surprisingly, such progressive informal housing usually outcompetes formal markets except when government bulldozes these settlements or actively eliminates them through other heavy-handed means. As emerging countries have democratized, the wholesale eradication of informal settlements, which contain much of the electorate, has become politically impossible.

Consequently, progressive housing development accounts for the bulk of new residential units in most emerging countries. The UN (UNCHS 2003) estimates that urban “slums” – which represent a part but not all of progressive housing development – contain 72% of the population of Sub-Saharan African cities, 59% of South-Central Asian cities, and 24% to 36% of the cities of other developing regions (other parts of Asia, North Africa, Latin America and the Caribbean, and Oceania).
However, the negatives of progressive housing are as striking as its positives. The process is typically highly inefficient and long, and exacts tremendous public and private costs over time. These eventual expenses overwhelm the upfront benefits when public and private institutions fail to serve these markets, as is typically the case.

Table 2 analyzes and describes progressive housing. The first column of this table lists the steps in the process and its overall characteristics in order to develop a framework for creating and assessing affordable home products and projects. Column 2 of this table provides illustrative quantitative estimates of the costs involved. Column 3 summarizes the goods and services necessary to streamline and squeeze the costs out of this process. In the context of the emerging literature on the topic of progressive housing (Ferguson, 2003; Ashoka, 2006; Greene, Margarita and Eduardo Rojas, 2008), this framework innovates in its cost estimates, level of detail, and usefulness as a tool to create and assess affordable home products of the private sector as well as public-sector programs and projects.

A review of the six steps in the process shows that progressive informal housing ends up costing many times more than formal-sector development. The first step of this process – acquisition of a lot of raw land – locks in many of these costs, creating a financial time bomb for government and households. Typically, households either invade public land or purchase a lot in an informal subdivision without full legal title. Land invasions predominated in the early stages of urbanization when many centrally-located parcels of vacant or underused publicly-owned land offered prime targets for occupation. In these beginning stages when land costs were lower, many cities also had legal low-income subdivision industries. Tighter urban land markets have now made illegal subdivisions on the distant periphery the main means of low/moderate income land development in most cities and, thus, the default mechanism for urban expansion (Ferguson, 2007).

These high costs come largely from fixing the problems created by informal settlement (steps 1a to 3a). Households pay clandestine developers many times (often, 10 to 20 times) their cost of purchasing this raw land for individual lots without receiving full legal title. They then struggle to keep physical possession and upgrade their rights to their lot (step 2) through keeping an adult family member (typically the wife) on site around-the-clock instead of working outside the home, bribing local police and officials, and paying the costs of regularization and registration of property ownership. In order to occupy the lot and begin consolidating their home and community, families build a makeshift shelter and acquire water and electricity via clandestine connections or by paying private suppliers many times the cost of publicly-supplied services for poor quality.

Upgrading this infrastructure (step 3) and building a permanent home (step 4) involves destroying these households’ initial investment by retrofitting a new road/services layout to the community at two to three times the cost of formal-sector development and replacing the makeshift shelter. Households pay exorbitant rates both to save and to borrow to finance this process (step 5). During the consolidation phase (steps 3b to 6c), families and neighborhoods usually suffer from much higher rates of crime, violence, and insecurity of all types than formal settlements of a similar socioeconomic profile. Combating insecurity involves building community institutions (e.g. neighborhood associations and groups of all sorts), establishing alliances with supportive NGOs, and developing partnerships with public agencies (step six), particularly the police.

In addition to the steps of progressive housing, the process also has a number of key overall characteristics (detailed in the last three points of column 1 of Table 2) that impact government and society as well as the family: sustainability (scale, financial, political, and environmental), proximity to existing infrastructure and services, and targeting/affordability to low-income households.

Thus, the affordable housing/urban upgrading challenge involves many different interacting factors. Solving one of these difficulties in isolation has limited positive impact. For example, “sites and services” projects -- the most common low-income land program of many governments -- usually provide a building lot with “starter” infrastructure but include neither the building materials to construct a unit nor the inputs necessary to consolidate the infrastructure and the community over time. Predictably, sites and services projects usually suffer from partial
occupation for long periods and end up benefiting many middle-income households that buy a lot for speculation rather than the poor.

Table 2

Steps, overall characteristics, costs, and goods and services for streamlining progressive housing

<table>
<thead>
<tr>
<th>Steps</th>
<th>Description and cost impact</th>
<th>Goods and services necessary to streamline process and reduce costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acquisition and occupancy of a lot</td>
<td>• Occupation of public land. Professional organizers – sometimes in conjunction with public officials – assemble groups of households, conduct these land invasions, and charge households for these services. Often, these organizers or other local bosses continue to charge households for access to their land and services in informal settlements. Example: local mafias control energy distribution in the favelas of Rio de Janeiro, and add a surcharge of 10% to its cost.</td>
<td>• Formally-developed subdivisions with “starter” services (e.g. collective water and a gravel road network) located near trunk infrastructure lines.</td>
</tr>
<tr>
<td>a. Physically occupy lot</td>
<td>• Purchase of a lot of raw land in an informal subdivision. Informal developers purchase rural land on the urban fringe, subdivide the parcel into as many lots as possible without adding infrastructure, and then sell the lots to households at many multiples the price of acquisition, partially capturing the value of subsequent infrastructure improvements and collective services provided by government. Example: In Bogota, “pirate developers” sell raw lots of 72 Mts2 to low-income households for US $ 2,000 - that is, at almost US $28 per square meter (M2). In comparison, these pirate developers buy rural land in Bogota in the areas where illegal development predominates at less than 5% this amount - US $1.20 M2. (Maldonado, 2007).</td>
<td></td>
</tr>
<tr>
<td>b. Pay for lot</td>
<td>• Households in informal settlements acquire some basic services via clandestine connections or by paying private suppliers. However, the quality of these services is low, the price is typically many times that of formally-provided service, and households often must bribe public officials to get or continue to allow these clandestine services. Example: Privately-supplied water is 5 to 10 times the cost of publicly-supplied water in Karachi’s informal settlements and supplied by the infamous “tanker mafia” (Azfar and Rahman). Low quality and high cost also characterize the provision of electricity, sanitation and other services to informally settled areas in Jamaica compared with those of formal-sector development (Ferguson, 1996).</td>
<td></td>
</tr>
</tbody>
</table>
### 2. Upgrading property tenure to achieve security of occupation

- Initially, households typically lack secure tenure to their lot, and invest considerable amounts in time and money over long periods to maintain their tenuous rights and to hold it physically (Durand-Laserve, A and L. Royston, 2002; Habitat for Humanity International, 2008). Example: Studies have shown that women in Peru sacrifice their participation in labor markets outside the home in informal settlements largely in order to occupy the property physically in order to deter other claims to it, and that the main benefit of tenure regularization programs is to free up women's time (Morris).

- The cost of achieving full legal tenure varies widely among countries and within countries depending on the practices of local jurisdictions and the effectiveness of reforms, and is often less than the benefit to low/moderate income households. Examples: the full costs of registering title are US$400 to US$700 in Argentina (World Bank, 2006a), US $2,156 in Peru before title-system reform and US $200 after title-system reform (Morris, 2004). $2,500 in the Dominican Republic (Zanelli, 2008). Even after title reform in Peru greatly reduced the cost of full legal title to rates affordable to low-income families, however, households value formal title no more than many types of paralegal tenure that cost less and, as a result, fail to register new purchase agreements, allowing the property to revert to informality (Morris).

- Some cities and countries have created stable systems of secure intermediate tenure. Example: In Caracas, Venezuela, where around 60% of owner-occupants hold title to their property (located mainly on occupied public land) informally, a para-legal system of “supplemental title” (titulo supletorio) gives households effective security of tenure. Families can register this supplemental title to the improvements on the property – as opposed to the land, which, in theory, remains public – for free with the municipality once the application is prepared by a lawyer. Lawyers typically charge US $80 to $95 for this service, although public-service lawyers are available that will prepare this document for free for the poorest households that cannot afford even this sum. More commonly, security of tenure must be achieved on a case-by-case basis that varies with each informal settlement’s legal and institutional history.

### 3. Provision of basic infrastructure

- Retrofitting irregularly-settled neighborhoods to provide basic infrastructure typically costs two to three times as much as provision to formal-sector and planned development. Examples: cost of provision of basic infrastructure to informal settlement in Sao Paulo was US $3,540 per unit, compared to that for formal-sector development of US $1,300 (Abiko et. al., 2007); cost of provision of basic infrastructure to informal settlement in Bogota was $3,362 per unit, compared to that for formal-sector development of $1,100 to $1,350 per unit (Metroviivienda, 2003); informal settlement also required US $572 per unit, on average, of extra costs for public works to mitigate risk of emergencies and disasters, titling, and relocation of a portion of residents. In Karachi, the capital cost of piped water supply, underground sanitation, electricity and roads was 1.8 times higher in a typical large informal settlement than a planned one (Azfar and Rahman, 2004).

- Typically, the last service to be provided is piped sewerage and treatment and many low and moderate income neighborhoods never receive sewerage because of its high cost. A much less expensive alternative is improved pit latrines.

- Legal, financial, and administrative assistance and upgrading security of tenure. Land developers, building materials retailers and manufacturers, and utility companies have an interest in increasing the security of tenure of the low-income communities that they serve.

<table>
<thead>
<tr>
<th>3. Provision of basic infrastructure</th>
<th>2. Upgrading property tenure to achieve security of occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Upgrading (e.g. road network, paving, drainage)</td>
<td>- Initially, households typically lack secure tenure to their lot, and invest considerable amounts in time and money over long periods to maintain their tenuous rights and to hold it physically (Durand-Laserve, A and L. Royston, 2002; Habitat for Humanity International, 2008). Example: Studies have shown that women in Peru sacrifice their participation in labor markets outside the home in informal settlements largely in order to occupy the property physically in order to deter other claims to it, and that the main benefit of tenure regularization programs is to free up women's time (Morris).</td>
</tr>
<tr>
<td>b. Adequate sanitation (improved pit latrines or sewerage)</td>
<td>- The cost of achieving full legal tenure varies widely among countries and within countries depending on the practices of local jurisdictions and the effectiveness of reforms, and is often less than the benefit to low/moderate income households. Examples: the full costs of registering title are US$400 to US$700 in Argentina (World Bank, 2006a), US $2,156 in Peru before title-system reform and US $200 after title-system reform (Morris, 2004). $2,500 in the Dominican Republic (Zanelli, 2008). Even after title reform in Peru greatly reduced the cost of full legal title to rates affordable to low-income families, however, households value formal title no more than many types of paralegal tenure that cost less and, as a result, fail to register new purchase agreements, allowing the property to revert to informality (Morris).</td>
</tr>
</tbody>
</table>

Global Urban Development
### 4. Construction of the house structure

- **a. Improvement and expansion of unit of owner occupant**
- **b. Addition of accessory units and spaces for relatives and rental income**

- The process of progressive house construction and improvement is long and wasteful. Example: In Mexico, the construction of a 9 square meter space (size of a typical bedroom) typically takes 4 years and costs 30% more because of waste in loss and poor use of construction materials, inadequacies of design, and mistakes (CEMEX). Household mix their own labor with that of specialized construction workers to the extent that they can afford it. For construction of a basic two bedroom house, the process typically takes 13 years if unassisted.

- When unassisted, households frequently make technical mistakes in planning or construction that substantially raise final costs or result in lower quality. Example: focus groups of low-income progressive homebuilders in Brazil show that they often end up with asymmetric walls that lean to one side (Cities Alliance and Municipality of Sao Paulo, 2007) and other serious quality problems. These Brazilian households are willing to pay for technical assistance and want credit for specialized labor.

### 5. Finance of steps in progressive housing process

- **a. Household savings vehicles**
- **b. Small serial short-term credit for:**
  - purchase of lot
  - infrastructure provision and connection
  - expansion and improvement of structure

- The finance of the steps in progressive housing – such as purchase of a lot, tenure upgrading, and construction of the house – occurs mostly through household savings (Mitlin 2008) supplemented by small credits. However, low-income households typically pay very high rates both to save and to borrow. Example: the most widespread form of savings – informal savings clubs – carry substantial costs; that is, households get back significantly less than they put in; Rutherford’s seminal study on the savings of the poor calculates that households typically pay 30% per annum to the organizers of informal savings and credit clubs (called “Accumulating Savings and Credit Associations” – ASCAs – in the microfinance literature) in order to save. When households open accounts at formal-sector financial institutions, the interest rate paid is often negative in real terms (taking into account inflation); In addition, the institution charges fees for services, and the saver must pay for transport and spend time to make deposits and withdrawals. The most widely available source of small credits for low-income households consists of informal moneylenders, which typically charge very high rates of interest – 180% per annum is not uncommon (Rutherford, p. 19). Alternatively, informal savings and credit clubs charge, in effect, somewhat less for credit to participating members; 80% per annum is an illustrative rate (Ibid, p. 24). The most efficient form of savings and credit for the poor – Rotating Savings and Credit Associations (ROSCAs) – where all households contribute a set amount each month and one household “wins” the pot every month based on a lottery – carry effective lending rates that are much lower, but still substantial; Rutherford’s example of a typical ROSCA results in credit at 26% per annum (Ibid, p. 28).

- Packages of high quality building materials.
- Technical assistance in design, budgeting, and construction of houses
- Market information on the type of home improvement and upgrading of property tenure that increases home values.

- Organizing groups of households to save for home upgrading and to demonstrate creditworthiness
- Saving vehicles that create discipline and give a positive real interest rate
- A range of credit including: microfinance; supplier and consumer credit from developers and building materials retailers; and small mortgage loans; not only for building materials but also for specialized technical labor.
6. Building community institutions to combat insecurity

a. Formation of neighborhood groups
b. Local and international NGOs support neighborhood groups
c. Neighborhood groups and NGOs partner with public and private sector to increase security

- Crime, violence, and “insecurity.” Irregularly-settled neighborhoods have substantially higher levels of insecurity, and poorer health than other neighborhoods of households of a similar socio-economic profile. Strengthening and working with women’s role and citizen sector organizations is key to building trust, reducing insecurity, and selling appropriate packages of products in these neighborhoods. Examples: 70% of surveyed residents of one consolidated irregularly settled informal low-income community in Karachi had been victims of violence or robbery in this area, compared to only 2% in a planned low-income community with comparable demographics (Azfar and Rahman, 2004). In Jamaica, residents of many irregularly-settled communities are unable to get jobs as a result of the bad reputation of their neighborhoods (Ferguson, 1996).

- Organizing community associations and funding sources to operate them.
- Developing women’s networks to market goods and services.
- Community centers with daycare and youth facilities.
- Agreements with the police and other authorities that enhance security.
- Investment in street lighting and local police stations.

<table>
<thead>
<tr>
<th>Overall characteristics</th>
<th>Key questions -- extent to which:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sustainability</td>
<td></td>
</tr>
<tr>
<td>a. Scale</td>
<td>a. …project/product meets demand/need?</td>
</tr>
<tr>
<td>b. Financial</td>
<td>b. …revenues cover expenses?</td>
</tr>
<tr>
<td>c. Political</td>
<td>c. …project/product is independent of uncertain actions or subsidies of government?</td>
</tr>
<tr>
<td>d. Environmental</td>
<td>d. …project/product improves or avoids damaging the environment?</td>
</tr>
<tr>
<td>2. Location relative to existing infrastructure, services, and jobs</td>
<td>a. …project is distant from existing infrastructure lines, services, and jobs?</td>
</tr>
<tr>
<td></td>
<td>b. …this distance increases costs?</td>
</tr>
<tr>
<td></td>
<td>c. …these costs are borne by government?</td>
</tr>
<tr>
<td>3. Targeting/affordability</td>
<td>a. …product/project is affordable/targeted to low-income households?</td>
</tr>
</tbody>
</table>
When government programs succeed in integrating a sufficient number of steps to be truly useful to households, they tend to involve large subsidies per family and become boutique showcases – successful for a well-connected or lucky few but financially unsustainable if expanded to a substantial share of the population. Because of these high subsidy amounts, government affordable housing projects are seldom market-based and have limited scope.

No wonder that informal progressive housing development has been called a “devil’s bargain” and labeled as the principal agent in creating a “planet of slums” (Davis).

In this context, modern management methods – particularly a “hybrid value chain” approach (Ashoka, 2006) – well suit organizing, streamlining, and squeezing the costs out of the progressive housing process. Broadly, a “value chain” consists of the delivery of a mix of products and services to the end customer by different economic actors resulting in new business models that cut costs and/or enhance worth. The industry-wide synchronized interactions of those local value chains create a “value system” (Michael Porter, 1985).

The high costs that represent problems from the perspective of households and government constitute enormous potential markets for housing goods and services from the point of view of companies. For example, Figure 1 broadly quantifies the opportunity for construction materials sales, in general, and cement producers, in particular, in low-income housing in Brazil (Ashoka, 2007). Such supplier estimates are a highly useful complement to the perspective of households (that of “demand” – column 2 of Table 2). In particular, they demonstrate that ample markets do, indeed, exist at the bottom of the pyramid in housing and turn affordable housing and community upgrading from “problems” and “deficits” to be addressed mainly by government subsidies of limited scope into business opportunities for products and services capable of expanding to massive scale.

However, taking only a supplier view – particularly one focused on one product or service of a particular company – over-simplifies the problem and the task of designing products for this segment, and under-estimates the market that can be created by solving sections of it. In order to design products and assess markets accurately, companies must also examine low-income housing from the perspective of households and view their main product or service within the family’s overall housing problem. Good examples of such investigations include the market studies of CEMEX in Mexico (Michigan Business School, 2003) and Corona in Colombia (Trujillo-Cardenas and Gutierrez, 2006) that have informed the design of their bottom-of-the-pyramid products.

The key to creating value and, thus, markets in affordable housing is not only to lower the costs of each of its steps but also, more importantly, to innovate and join products and services together into new business models that address larger segments of the problem. To this end, column 3 of Table 2 lists products and services that can help reduce costs, particularly when assembled. For example, a company that not only offers high-quality, low-cost building materials but also provides competitive credit to purchase these building materials will create much greater effective demand than separate provision of these products without coordination.
Figure 1 -- Estimate of the Construction Material Market Opportunity in Low Income Housing in Brazil

Assumptions
- Deficit of 7.2 million houses
- R$10-20,000 material costs per house
- ~70% of housing deficit in urban areas
- 5-10% of the housing gap filled per year
- 20-30% of total costs is to be spent in cement

Total construction material revenue opportunity

Revenue opportunity in urban area

Revenue opportunity in urban areas per year

Revenue opportunity in urban area for cement players

Rough Estimate

Filling the low income housing deficit in Brazil represent a revenue opportunity of R$500 – 3,000 million/year for cement players

Source: Ministério das Cidades, IBGE, MCT, Ashoka, Team analysis
Broadening this package to include remittance services (for sending money from family members in other countries to help their relatives invest in housing), savings vehicles with positive real rates of interest that organize and encourage families to set aside money regularly for home construction, and technical guidance for the design and construction process will expand the total market still further. Such packages will displace high-cost suppliers of these inputs -- i.e., the savage informal markets that make progressive housing many times more expensive than formal development.

For example, CEMEX has found that selling only cement fails to reach effectively the self-help housing market in Mexico, which constitutes 40% of sales and withstands downturns much better than the formal-sector cement market. Instead, this company discovered that it must provide a complete housing solution at low cost through joining microcredit, a savings program, technical assistance in design and building, and other building-materials with cement in its well-known bottom-of-the-pyramid program, Patrimonio Hoy. In effect, Cemex has created a product/service package for low-income households to build their home in two to three years rather than 16 years (the median for self-help housing in Mexico). The company projects serving one million Mexicans under this program by 2010 and has recently added remittance services and product/service packages to build neighborhood streets and schools to this core self-help housing product.

The synergy created by product/service packages holds much greater importance than competing on price alone on one product. In effect, households value this synergy over deep discounts. For example, Cemex and Corona offer their central product (cement and floor tiling, respectively) at competitive rates but not the lowest cost and avoid price wars.

Although modern companies well suit the provision of packages of high-quality inputs to squeeze costs out of the progressive housing process, they typically have little direct access to poor communities, which they find dangerous and difficult places in which to work, and to low-income people, who usually do not trust them. As a result, citizen-sector organizations can perform an important function at critical junctures in the value chain. In the words of Corona, a Colombian building materials manufacturer and retailer with a bottom-of-the-pyramid product for poor communities, “we cannot work in these places directly and channel our products through NGOs.”

The roles suited to citizen-sector organizations include empowering households and the community as well as marketing and delivery of the product/service package. CEMEX and Corona employ neighborhood women as sales representatives for these functions. CEMEX’s networks of female sales reps has proved crucial in overcoming the resignation of low-income households to the length and the high cost of typical self-help housing and in motivating families to participate in a program to build their homes in 24 to 36 months rather than 16 years. While mass media (radio, television) fail to reach these neighborhoods, the local women sales reps of Corona and CEMEX have generated a steady expanding volume of business for their bottom-of-the-pyramid products.

Consequently, a “hybrid” value system that joins the strengths of for-profit modern companies with those of citizen-sector organizations can best deliver affordable housing products (Ashoka, 2006). For similar reasons, citizen-sector organizations also can provide the critical intelligence and relationships to use public subsidies well in these neighborhoods. Although citizen-sector organizations can play a role throughout the progressive housing process, they can contribute most to “building community institutions and combating insecurity” -- step 6 of Table 2. For-profit firms typically focus on selling product/service packages to build houses and then exit. In comparison, citizen-sector organizations stay involved in consolidating the community, which -- in effect -- expands markets long-term. The long-term stewardship of citizen-sector organizations can create enormous public and private benefits. Increasingly, modern companies recognize the strength by involving and supporting nonprofits in their bottom-of-the-pyramid programs. The size and collective nature of these benefits also justifies public support of effective NGOs.
Bruce W. Ferguson is a consultant and former Senior Housing and Urban Economist at the World Bank, and a member of the Advisory Board of Global Urban Development. He previously served as an Urban Development and Housing Project Officer at the Inter-American Development Bank, and has published widely on housing and urban development in developing countries and the U.S. Copyright 2008

Citations


Durand-Lasserre, Alain and Lauren Royston (eds). Holding Their Ground; Secure Land Tenure for the Urban Poor in Developing Countries. London: Earthscan Publications. 2002


Global Urban Development


Global Urban Development