

Design Research in Remote and Emerging Markets: Mexico, China, Thailand and India

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Abstract

Design's recent interest in emerging markets has focused attention on the economies of China, India and Brazil. These are examples of growing economies with gigantic consumer bases, where the possibility of designing products for large markets has piqued the interest of US and European manufacturers. Consumers in these markets have traditionally been under-served by foreign manufacturers to the extent that their needs are not considered at the front end of design with the same alacrity that consumers' needs are considered within the boundaries of manufacturers' local markets.

In the United States, the size and importance of the Mexican community (including both new immigrant and established Mexican-American populations) has added Mexico to this list, making design for Mexican markets in Mexico and in the US interesting to designers and manufacturers alike.

What will be discussed are design research methods used to conduct generative research in emerging and remote markets (including Mexico, China, Thailand and India), ranging from an immersion workshop in Chicago's Pilsen and Little Village neighborhoods to secondary ethnographic research conducted in China, Thailand and India. The methods described belong to an over-arching methodology of human-centred design, which grounds design within an understanding of user needs.

Key Words

Remote design research, human-centred design, emerging markets, remote markets

Designing for Emerging and Remote Markets

Design's recent interest in emerging markets has focused attention on the economies and consumers of China, India, Brazil, and to some degree, Russia and South Africa. These are examples of growing economies with gigantic consumer bases, where the possibility of being able to design products for large markets has piqued the interest of US and European manufacturers. Consumers in these markets have traditionally been under-served by foreign manufacturers to the extent that their needs are not considered at the front end of design with the same alacrity that consumers' needs are considered within the boundaries of the manufacturers' local markets.

In the United States, the size and importance of the Mexican community (including both the

new immigrant and established Mexican-American populations) has added Mexico to the top of this list, making design for the Mexican market (both in Mexico and in the US) of particular interest to designers and manufacturers alike.

For human-centred designers, design research is critical at the generative stage of a design program in order to establish an understanding of user needs as a foundation for subsequent design activities. What is generally involved are a series of research activities geared towards gaining insight into the lifestyles, needs and desires of the current and future consumers of the product or service in question. An ethnographic approach is ideal, achieved when designers directly immerse themselves in the experiences, environments, culture and way-of-

life of the people whose needs design will later be addressing.

This human-centred approach has become more common in design circles in the United States, and is easily implemented in the design of products for a local market where there is immediate access to the consumer groups targeted by design.

A common challenge faced by human-centred designers occurs when a product or service they are designing is destined for consumption in a foreign or remote market. Under these circumstances, although the obvious attraction for manufacturers is the possibility of dramatically increasing the size of their consumer base, the cost of traditional contextual research is sometimes anticipated to be prohibitive during the planning stage of the project. The risk in these situations is that the rich understanding of the remote consumer audience, so critical for human-centred design activities to proceed, is effectively eliminated from the design process.

A pragmatic solution does exist to this conundrum and is based on developing research protocols that virtually transplant the designer into the place where their products and services will ultimately be used. What is required on the designer's part, beyond the facility to adapt to this new design environment, is an unending supply of humility – the humility necessary to realize that it is vital to draw design inspiration from a real understanding of a target audience that might be located half a world away.

Remote design research methods including immersion and secondary ethnographic research are focused, efficient examples of these protocols which will be discussed by way of the following case studies.

Immersion

In May of 2005, Research Triangle Institute (RTI), an independent American nonprofit corporation involved internationally with scientific research and technology development projects, organized an immersion workshop focused on conducting generative research for an innovation project aimed at an emerging segment of the Mexican market.

Broadly, the ultimate goal of the ongoing project is to pursue opportunities for product, service and business innovation that will stimulate local economic development in Mexican communities in collaboration with community organizations and a consortium of corporate partners. Members of the multi-national consortium who were represented in the immersion process were First Data/Western Union, Humana Health, and Whirlpool Corporation.

Early on in the planning process, the decision was made to stage the immersion exercise domestically, in Chicago's Little Village and Pilsen neighborhoods, in favor of what was potentially a logistically more complicated scenario in Mexico. These two Chicago communities were chosen as they are the center of the second largest Mexican community in the United States and represent an extraordinary opportunity for developing a US-based pilot site for the consortium. In Chicago and Illinois, the Mexican community also enjoys substantial political respect and has earned significant influence. This has been accomplished through a strong network of community organizations, civic and political action, and a family-centered tradition of advocacy. A growing class of entrepreneurs has emerged from the community who also are committed to establishing new ventures that will eventually grow the wealth of the entire community.¹ The inauguration of these shared new ventures between the multi-national consortium and community leaders was the primary objective of the immersion workshop.

Data collection

Over the course of three days, consortium members worked in small teams led by local community representatives and accompanied by designers conversant in human-centred design research methods, to conduct research in the Chicago neighborhoods of Little Village and Pilsen.

Data collection methods included photographic and video documentation of contextual interviews and observation sessions. Teams

¹ Jennifer Reck, written communication with author, 10 May 2005.

spent time walking through both the Pilsen and Little Village, which are de facto Mexican towns that happen to be located within the city of Chicago. The predominant language spoken in both communities is Spanish. Consequently, each group was accompanied by a Spanish-speaking, "culturally-sensitive" guide who also served as a translator to the groups.

Teams visited as many places in the neighborhoods as possible including: stores and other businesses, non-profit and community organizations, medical clinics, churches and schools. Members of each team conducted impromptu interviews with residents, consumers, business people and community activists throughout the course of the data collection phase.

The focus of these observation and interview sessions was to gather information about everyday life in the communities from the perspective of people who live and do business there. This contextual research was supplemented by meetings with community leaders and representatives of community organizations who gave consortium members another perspective on life within their communities, and the successes and challenges faced by residents there.

It is noteworthy that many of the interviews were conducted with Mexican immigrants to the United States who still maintain very strong ties to Mexico.

Results

During the final two days of the workshop, participants gathered together and went about consolidating and analyzing data collected during the course of the immersion. The insights gleaned from this analysis process were synthesized into design recommendations embodied by 39 tangible design concepts proposed for future innovation initiatives.

The following criteria were elucidated in the process of laying a foundation for the design of new products and services for the targeted Mexican markets:

1. Consider the importance of the Mexico-US link in all proposed concepts.

2. Consider the importance of family, culture and community loyalty in all proposed concepts.
3. Account for the distinction between documented immigrants, US born and undocumented immigrants.
4. Protect and stimulate the entrepreneurial spirit of the targeted communities.
5. Leverage informal business practices.
6. Establish mutually beneficial partnerships between businesses and communities.
7. Cultural competency is a necessity for product and service development in this market.
8. Health initiatives need to be holistic.
9. Acknowledge the change in gender roles, family structure, and demographics in targeted communities.
10. Consider local use of and need for physical space.
11. Build on existing economic, political, and religious structures within the communities.²

These criteria were used to generate tangible design concepts, including:

1. Mobile point of sale business models linked to street vendor carts found in abundance in both neighborhoods.
2. Dual-country debit cards for use in both the US and Mexico.
3. Formation of purchasing clubs and community co-operatives in targeted communities.
4. Health insurance plans valid in both the US and Mexico.
5. Mexican-themed local movie or entertainment center (currently absent in both communities).
6. Community-operated radio station.
7. Multi-purpose retail locations and modular kiosks.
8. Developing industry in the communities as an OEM for local product assembly.

² RTI International, "Learning States Initiative: Global Academy Meeting" (Chicago, 1 June 2005).

9. Business plan competition involving multi-disciplinary teams formed from both countries (US and Mexico).³

Finally, an action plan was developed to pursue the development of new products, services, and business models for Mexican consumers in both Chicago and Mexico with the 39 generated design concepts as a foundation. A select number of these design concepts will be refined and further developed, in part, by way of a second immersion workshop in Michoacán, Mexico.

Ultimately, the Chicago-Michoacan immersion process is geared towards fostering partnerships and new business ventures between involved multinational companies and local players in these emerging markets. The basis for these partnerships has been established in no small part through the intervention of a human-centred design methodology.

Secondary Ethnographic Research

Although it is always ideal to conduct primary design research, the logistic and budgetary realities of doing design work often intervene, making this an impossibility. This is especially evident when doing design research for remote and emerging markets, necessitating the development of a creative secondary research alternative.

This approach was used by Chicago-based product development firm Product Development Technologies (PDT) in designing low-cost mobile phones and a multi-media device aimed broadly at markets in Southeast Asia, China and India. Secondary ethnographic research was the only method feasible for rapidly gathering reliable information on current product use in these markets from Chicago.

Data collection

Data collection for these development efforts was accomplished by individuals living and working in the countries of interest, under the

supervision of designers based in Chicago. Data collectors were not always designers with design research training, though all were conversant with and professionally active in the particular area of interest for design.

Data collectors in Tianjin, Bangkok and Mumbai completed photo and video ethnographies by conducting (primary) contextual research and documenting this photographically or on video. Data collectors were guided by detailed protocols designed to focus their investigations and facilitate the evolution of these into insights into social and cultural trends and product use in all three locations. These insights were used to drive analysis activities in Chicago that led to the development of design criteria for a low-cost mobile phone and a hand-held multimedia device.

Without direct input from China, Thailand and India, designing culturally, socially and economically relevant products would have been an impossibility for designers based in Chicago. Data collectors in this situation served as well as translators, facilitating the process of educating designers about the context of product use in remote locations.

Results

Following data collection, designers in Chicago analyzed data and, in subsequent consultation with data collectors, identified insights that were synthesized into design recommendations embodied by 14 mobile phone concepts and 4 concepts for a hand-held multimedia device.

Below is a sample of the insights and design criteria uncovered by remote design research for these development programs:

1. Observation of people using mobile phones while on bicycles in China led to the insight that design intervention was required to make it safer to do this, in the same way that accommodations are made to make mobile phones in the US safe to use while driving.
2. In China and Thailand potential markets for a low-cost mobile phone include migrant workers and domestic servants who are willing to spend as much as a

³ *Ibid.*

month's salary on their mobile phones as this is the only link they have with their families. Bearing this in mind, product concepts should address human factors issues related to the use of the phone by targeted users while at work.

3. In India, the public sharing of photographs and slides is a common social custom at parties and gatherings. With this in mind, the design and configuration of multimedia devices should facilitate the sharing of photographs, videos and music in a more public way than is possible with existing products.
4. The text messaging capability of the multimedia device needs to be enhanced in markets (such as India) where this function is of extreme importance compared to the US.

Conclusions

Remote Design Research lays the groundwork for design by offering the opportunity to efficiently and inexpensively gather information about the way that people around the world live and use products and services. What is required to integrate this research method into the design process is that designers approach projects aimed at remote and emerging markets with the humility and cultural sensitivity necessary to develop a thorough understanding of the intended users of their products and services.