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Design for localization in India



EXPERIENCES AND PRACTICES OF NINE FINNISH SMEs

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Abstract

The role and importance of the Base of the Pyramid markets are rising. Thus companies seeking for growth have to think how they can be competitive in these markets. Attention has to be paid especially to the localisation aspects in the product/service offering. Here, the design approach can play an important role. Design Centre MUOVA studied the special features of the BoP market and the design approach to facilitate the localisation of nine SME's product offering in Indian markets. The study pointed out that Finnish SME's localise their offering for Indian B-to-B markets. They design goals and principles were listed and analysed based on the theoretical background and the company interviews. Especially, the SME's used design principles concerning customers, staff and stakeholders. However, the process was not very systematic. Design-oriented exploratory and generative methods such as stakeholder maps, personas and customer journey maps could be valuable in supporting the localisation.

Tiivistelmä

Kehittyvien markkinoiden rooli ja tärkeys on kasvamassa. Etsiäkseen kasvua yritysten olisi tärkeää miettiä kilpailukykyään näillä markkinoilla. Tuote- ja palvelutarjonnan lokalisointiin olisi kiinnitettävä erityistä huomiota, minkä kehittämisessä muotoilulla voisi olla merkittävä rooli. Muotoilukeskus Muova tutki kehittyvien markkinoiden erityispiirteitä ja muotoilun näkökulmaa lokalisoinnin helpottamiseksi yhdeksän PK-yrityksen tuote- ja palvelutarjonnassa Intian markkinoilla. Tutkimus osoitti että suomalaiset PK-yritykset lokalisivat tarjontaansa Intian B-to-B-markkinoille. Muotoilun tavoitteet ja periaatteet listattiin ja analysoitiin perustuen teoreettiseen taustaan ja yritysten haastatteluihin. PK-yritykset käyttivät erityisesti muotoilun periaatteita, jotka liittyivät asiakkaisiin, henkilöstöön ja sidosryhmiin. Prosessi ei kuitenkaan ollut kovin systemaattinen. Muotoilulähtöiset generatiiviset tutkimusmenetelmät kuten sidosryhmäkartat, persoonat ja asiakasmatkakartat voisivat olla arvokkaita keinoja tukea lokalisointia kehittyvillä markkinoilla.

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1. Introduction

The extensive Indian market offers huge business opportunities for all kind of companies. India is anticipated to be one of the largest economies in the world by 2025 (Suomen Intia-toimintaohjelma). Literature has emphasized the potential of Base of the Pyramid (BoP) markets for companies and their potential in the demand for products and services (Hammond and Prhalad, 2004; Rangam, Qiúelch, Herrero and Barton, 2007). However, Viswanathan and Rosa (2007) argue that the product development process will differ between BoP markets and developed markets. Understanding the prerequisites for localization of products and services is important for companies entering BoP markets.

The goal of this study is to investigate how design approach can contribute to the localization of products and services. Localization is studied in the context of small and medium-sized B-to-B companies, when they establish activities in BoP markets. The study draws from interviews of nine Finnish SME's describing their experiences on localization activities when establishing to Indian markets. The analysis is grounded with literature review of how Indian markets differ from Western markets and how the design approach contributes to the localization of products and services.

Product development in emerging markets faces challenges such as a widespread corruption, poor infrastructure, poor legislation and uncertain demand (Crul and Diehl, 2006; Donaldson, 2006; Tybout, 2000). These usually make market-based product development activities challenging. The focus of design and innovation activities in BoP context expand from the product issues to distribution, scalability, upgradability and sustainability. The focus expands from products to a system with both physical products and intangible services (Castillo, Diehl and Brezel, 2012).

Extant literature on design approaches for the BoP is mainly focused on the consumer markets. Chakravarti (2006) and Viswanathan (2007) argue that the product needs in BoP markets are influenced by life experiences of chronic resource, literacy, psychological, and social barriers. Based on the literature, the future of BoP population is unsure in nature and the changes in consumer markets are difficult to predict. The consumers seems to be willing to pay attention mostly to fulfil basic, essential needs on a day-to day basis, and they rather make the product themselves cheaper than purchase it (Wisvanathan, Seth; Gau, and Chaturvedi, 2009).

Therefore, the literature suggests to employ context-driven, user-centric design processes to understand the special conditions in a specific BoP context and developing an offering adapted to unique and critical user needs identified (Anderson and Markides 2007; Prahalad 2009;

Viswanathan and Srinivas 2012; Wooder and Baker 2012; Esposito, Kapoor, and Goyal 2012; Koch and Hammond 2013).

The extant literature seems to disregard how design approach is applied to the localization of B-to-B offering. This study focuses on how Finnish small and medium-sized B-to-B companies localized their products and services in the context of establishing activities in BoP markets. As a key result, this study discusses how design approach can contribute to the localization activities.

1.1 BoP approach – special elements in entering BoP markets

Competing in the BoP market is more and more essential for western companies looking for growth opportunities, innovation and transformation (Nirmal Sethia, Design Management review summer 2005). BoP markets can act as a productive base for low risk experiments and drastic innovations, which could help companies to get a competitive edge.

The BoP market can rather be seen as a complex than a homogenous market (Esposito, Kapoor, and Goyal 2012). Thus, companies should take into consideration the specific national, regional cultural or socioeconomic circumstances. (Anderson and Markides 2007; Esposito, Kapoor, and Goyal 2012). A positive, trusted brand identity is very important in the BoP markets and durability, reliability and maintainability are the most crucial elements of it. (Austin-Breneman and Yang 2013; Koch and Hammond 2013). The low level of infrastructure needs also to be taken into consideration when designing appropriate solutions (Prahalad 2009; Viswanathan and Srinivas 2012).

In BoP markets the durability and robustness of the product are essential aspects. Then shortage of electricity and water are usual in a poor infrastructure. Communities can lack waste collection and recycling systems, but the products/systems have to be eco-friendly and the low-cost (Sethia 2005).

BoP segments can have the lack of expertise, skills and experience with new products and services and they can be unfamiliar with technology. These challenges can be resolved with design and customization, “deskilling” (Prahalad 2009; Viswanathan and Srinivas 2012; Basu, Banerjee, and Sweeny 2013), as well as educating users in appropriate usage (Schafer, Parks, and Rai 2011).

The evolution of features and functions in product solutions can be very rapid in the BoP. Therefore companies should design flexible and modular solution platform, which can be extended with new functions, features and services (Ray and Ray 2011; Schafer, Parks, and Rai

2011; Austin-Breneman and Yang 2013). According to Prahalad (2009), the reduction of resource intensity is a critical design principle as well.

Madhubalan Viswanathan and Srinivas Sridharan (2011) studied 13 product concept and prototype development projects in BoP markets. Among the most important factors to succeed in BoP markets were the ability to identify critical and key aspirational product needs and envision unfamiliar usage situations. It was essential also to design products with a high degree of local usability, flexibility and sustainability and look beyond infrastructural deficiencies and take advantage of even meager alternative resources in the development of products. The study demonstrated that bottom-up understanding of the marketplace and the users offers a possibility for sustainable innovations. (Viswanathan and Sridharan, 2011). The key design factors for product design in BoP markets can be summarised with a table described by Viswanathan and Sridharan (2011).

Table 1. Key factors of concept and product development for BoP markets

Key factors of concept and product development for BoP markets
Understanding the markets <ul style="list-style-type: none">• identify critical need• identify key aspirational needs• envision product usage situations
Product design <ul style="list-style-type: none">• design for multiple purposes• design for customization• design for low-literature users• design for local sustainability
Product development and delivery <ul style="list-style-type: none">• leapfrog lacking infrastructure• leverage available infrastructure• develop product infrastructure• add-on to existing products

As a conclusion, the extant literature has identified several design principles critical in BoP markets. The literature review covered marketing and management approaches, while design research can bring a supplementary standpoint to the discussion.

1.2 Design approach in localization of product and service offering to BoP markets

Companies seek for new customer markets in developing countries on a continuous basis. Thus, product design for the BoP markets is a rapidly growing field. Sethia suggests that design can and should play a vital role in this new opportunity environment. According to Sethia, designers can help in offering a skill set and a mindset different from traditional businesses (Sethia, 2005).

Several studies show that conventional design technologies for mature countries are not efficient for developing markets (e.g. Chavan et al. 2009; Kandachar et al 2009; Castillo, Diehl and Brezel 2012). Minor modifications to the existing products are not considered sufficient (Kandachar et al. 2009). The localization of products requires deep elaboration of local conditions and market needs and often drastic changes in the product.

Castillo, Diehl and Brezel (2012) conducted a literature review of design requirements taken into consideration by the design teams during development projects in BoP contexts. They found four clusters of design requirements. BoP projects often start with a definition of requirements that determine what a user desires to satisfy its needs relating to desirability of the solution. Viability relates to the affordability, which is one of the most important requirements in any BoP projects. (ibid.) Many said that they had done market analysis, and had conversations with potential customers. Feasibility is about addressing technological requirements through design in order to propose solutions fit to the BoP context, which is often characterized, for example, hostile infrastructure and limited resources. Finally, sustainability cluster calls attention to environmental and social impacts that a product may entail. (Castillo, Diehl and Brezel, 2012)

A framework illustrating design requirements for the BoP markets was created based on literature (Table 2). The framework presents multiple individual design requirements and forms requirements up to four main themes, which are in line with four clusters suggested by Castillo et al. (2012). The framework consists of four aspects: business, people, environment and technology.

Table 2. Framework illustrating design requirements for BoP



Design requirements presented in figure 2 can be translated to the design approaches that reflect multiple means to localize products and services for BoP markets. Pekkala and Jakobsson (2015) suggested a framework of design approaches in BoP context (table 3). They organized design requirements into two overarching categories; design goals and design principles. The former category characterizes the general goal of the design process in the BoP context. The principles refer to practical considerations and techniques.

Table 3. Framework of design approaches in the BoP context

Goals	Focus on use context	Involve all stakeholders	Focus on systemic solutions
	Focus on harsh physical environment	Build strategic collaborative networks	Design for scalability
Principles	Focus on user needs	Create awareness	Design for distribution
	Focus on affordability	Utilize and expand local knowledge base	Design for accommodations
	Focus on low skills	Align solution with government and regulatory frameworks	Design for local income generation
	Consider hybrid solutions		Conserve resources

Firstly, the literature highlights the importance of understanding the conditions in a specific BoP context and developing an offering adapted to unique and critical user needs identified (Anderson and Markides 2007; Prahalad 2009; Viswanathan and Srinivas 2012; Wooder and Baker 2012; Esposito, Kapoor, and Goyal 2012; Koch and Hammond 2013). Companies need to take into consideration the specific national, regional, cultural and socioeconomic issues and understand the unique requirements of local business practices. Direct engagement with local culture and user context is highlighted as means to translate needs and aspirations to successful solutions.

Designing for affordability means reaching a high price-value ratio. (Anderson and Markides 2007; Prahalad 2009; Basu, Banerjee, and Sweeny 2013). The most common strategy to design for affordability is to keep solutions simple by focusing on the most important features. (P. K. Ray and Ray 2010; Wooder and Baker 2012; Basu, Banerjee, and Sweeny 2013). This calls for proper investigation of users and customers.

Products need to function in challenging environmental conditions, such as heat, humidity and dust. Frugal infrastructure can result for example in difficulties to access services in remote areas (Pralhad 2009). In order to create scalable and affordable offerings the solution could be in integrating modern practices and advanced technology to local practices and existing infrastructure (Pralhad 2009; Schafer, Parks, and Rai 2011).

Secondly, engaging multiple actors on different levels and building collaborative network is considered as a crucial design goal in order to achieve successful business at the BoP (S. Ray and Ray 2011; Esposito, Kapoor, and Goyal 2012; De Boer, Steen, and Posthumus 2013). Participatory design approaches can be used to facilitate this process (Hart and Simanis 2008).

Users at the local level may not be reachable by means of traditional advertising because they may not have access to radio or TV (Anderson and Markides 2007; Prahalad 2009; Schafer, Parks, and Rai 2011). If there is a lack of awareness of new solutions, users are uncertain for their effectiveness (Schafer, Parks, and Rai 2011). Applying alternative creative ways to communicate solutions may help in increasing awareness.

Low education level and semi-literacy should be considered when designing products and services. For example, education can be considered as a service connected with the product design. In addition, BoP businesses should also ascertain that the offering meets the government policies and the regulatory requirements.

Poverty, dispersed markets and frugal resources bring out the third goal. They force to expand the focus of design from a product to product-related issues, such as distribution, scalability, upgradability, sustainability and capacity to create income. These elements have to be designed in parallel with the product. Castillo, Diehl, and Brezet (2012) suggest that perceiving

solutions as product-service systems (PSS) and applying PSS design methodologies may help to create sustainable solutions satisfying the needs of the network of multiple actors.

According to Sanders and Stappers (2008) the use of generative design tools makes it easier to look forward into the possible futures where people will be living, working and playing. Designers have the responsibility to explore the potential of generative tools and to bring the languages of co-designing into their practice. Design-oriented exploratory methods aim to create understanding about users, which can be used for guiding and inspiring development processes. Generative methods, on the other hand, co-create solutions with users (Martin & Hannington, 2012.)

1.3 Finnish SME's competitive advantages in India

As a part of Muova's CU India research project nine Finnish SMEs operating in India were interviewed. According to the study the geographically and culturally distant market poses challenges especially to SMEs. They usually have less human, financial and other resources, which are seen as important for the internationalization process. The researchers suggest that the offering and value proposition of SME's need to be in place and clearly defined (Jakobsson, Lammi and Pekkala, 2015). To provide support and offer complete systems was also seen as important. A niche market strategy was seen as fruitful in these markets where reliable brand is crucial.

According to the interviewees recruiting the right key persons and training the staff was very important. Finding reliable partners was also seen as essential. For Finnish SMEs it is difficult to compete with price, thus it is essential to find other competitive factors. The respondents saw that their company offerings have many advantages, which make the companies successful.

The interviewed companies stated that their competitive advantages in India were:

- technical superiority/innovations
- focus on the niche market
- quality and reliability
- end customer support
- known brand and company image
- an end-to-end-solution and a complete system
- improve processes as a partner
- experience gained in the market

- European know how and way of operation and customs duty and environments standard.

According to some respondents the offering is exactly the same in India as in other markets. Some large multinational companies require the same quality in all markets. The respondents also stated that some of their competitors do not modify their products either. Some companies do a few modifications in their offering to make it applicable to the Indian markets while others use components that are not of same quality as in Western markets. In some cases a more downgraded version is more applicable for the Indian market because of price reasons.

2. Design approaches of Finnish SMEs

This study focuses on the use of design when entering Indian markets. How did the interviewed SMEs use the design practices or design approaches when entering to Indian markets? What kind of experiences they had about localization through design in Indian markets?

Nine depth interviews with nine Finnish SME's operating in India were made. Either the managing director or another representative of the management were interviewed by phone or face-to-face. The interviews were semi-structured open-ended theme interviews. The data gathered from the interviews was then grouped in relevant themes for the research topic. The companies in question had established operations in India between 2009 and 2012.

The classification of the data was made based on the theory of design goals and principles discussed earlier and presented in table 3. This classification acted as basis for the analysis. The results are shown in table 4 and analyzed accordingly.

Table 4. The use of design goals and principles

Design goals and principles	Number of users
Focus on use context:	
Focus on harsh physical environment	1
Focus on user needs	7
Focus on affordability	4
Focus on low skills	3
Consider hybrid solutions	3
Involve all stakeholders:	
Build strategic collaborative networks	5
Create awareness	4
Utilize and expand local knowledge base	3
Align solution with government and regulatory frameworks	4
Focus on systematic solution:	
Design for scalability	0
Design for distribution	2
Design for accommodation	0
Design for low income generation	1
Conserve resources	3

2.1 Focus on use context

When interviewed companies discussed about the focusing on use context, the principles concerning customers and staff seemed to be the most significant factors. To get the best price-value ratio for the offering was also considered important among the respondents. One representative from the construction industry said that new ways of construction have to be innovated because the Indian population is growing with an accelerating paste. Another said, that *“in Indian markets nobody is willing to pay the price of a Mercedes, when the population is driving Ladas”*. The price competition is so severe, that sometimes it is necessary to use components of worse quality.

The SME's mentioned that understanding the market and the customers is very essential and one of the most important success factors. Almost all companies had focused on customer needs when adapting their offering to the Indian market. Many said they had done market analysis, and had conversations with potential customers. In order to succeed in Indian markets, creating trust among the customers and a good business plan are crucial. *“India is huge and if you have a good business plan and structure you are going to grow wildly”*.

“The success factor is the understanding of markets and user needs and adapt accordingly.”

Thus, focus on customers' business context was seen as very important and most of the SME's had focused on customer needs. *“We focus on quality and the support for the end-customer”*, said one respondent. Half of them had focused their offering on affordability. *“The majority of the deals are won by price, so you have to take into account the local price level”*, said one respondent. According to another respondent the price competition is hellish.

Finding the right partners and committed key personnel was seen as crucial. The infra is often poor and the staff must be trained and managed with expertise. In recruiting especially the manager's local skills were seen as important. Also documentation and sketches have to be more detailed, otherwise the project is not going forward. Another said that even if the operations model and the business culture are different in India, they are satisfied with what is happening on the factory floor.

2.2 Involve all stakeholders

Based on the interviews the most crucial element were building strategic collaborative networks and creating awareness in the market. Also governmental and regulatory frameworks were mentioned often. Involving strategic stakeholders was seen as essential and the majority had built strategic collaborative networks.

A good and reliable distributor was seen as very important as one respondent expressed: *"We grow together with the distributor and have common goals"*. Another interviewed uses distributors with a Western business culture and with high moral and quality. About half of the companies had utilized local knowledge base.

"Local directors, that you can trust 100 % is imperative in Indian markets", as one respondent stated. Another stated that the partners should be a bit westernized in order to understand how we think.

*"We grow together
with the distributor
and have common goals".*

Most of them were of the opinion that creating awareness in the market was very important. Many said that the most important thing is to go to India and meet potential customers and partners: *"If you succeed to get one meeting, soon you have your calendar full of meetings"*, one respondent mentioned. This was often linked to a known and reliable brand and a high standard image. One respondent stated that they are referred as a pioneer, a noted actor in the market, which helped them to create contacts and gain trust among local customers. They also co-operated with the biggest players in the market. Another said that European knowhow and way to works are appreciated in India. References were also very crucial when developing the business further.

Half of the respondents aligned their offering with government and regulatory framework. For example, environmental standards and ISO standards were seen as a competitive advantage in many companies. One stated that the norms and standards were imported from Europe and the personnel were educated to the Western norms and standards since there were no standards in this branch.


*"You just have to be
curious and bold,
and the doors will open easily".*

2.3 Focus on systemic solution

One third had considered hybrid solutions in their product/service offering. One company said that their competitive advantage is that they sell their product as a part of a whole system. *“The locals are willing to do easy business, with a whole package solution which works”*. Thus they don’t compete with price but sell rather value.

Another stated that when focusing on hybrid solution it is not necessary to compete with price.

“The locals are willing to do easy business, with a whole package solution which works.”



Conserving resources was seen as important in some branches, as well as design for distribution. Design for low-income generation was not seen that relevant since the companies were on B-to-B business. Focusing on systemic

solution was thus seen as less significant among the companies comparing with the other two design goals and principles: focusing on use context and involving stakeholders.

3. Conclusions

This study introduced the special features of the BoP markets and the design approach to facilitate the localization of the product/service offering in Indian markets for SME's. Nine Finnish SMEs were interviewed for the CU India study. The interviews were analysed in order to understand localization activities when entering the Indian markets. According to this study, it seems that the Finnish SME's localize their offering for Indian B-to-B markets. However, the process was not very systematic, and some companies did employ design approach very modestly.

Most of the companies had analysed local customer and market needs in order to better adjust their offering to Indian markets. In B-to-B development, focus seems to shift from users to customers and related stakeholders. In addition, companies emphasized identifying and involving stakeholders to form up a strategic collaborative network. For example finding a good and reliable distributor was seen as very important.

Focus on affordability was seen as important, as well as considering hybrid solutions. Conserving resources was seen as important in some branches and aligning solutions with government and regulatory frameworks was perceived crucial. In addition, companies considered training of staff and using local skills important. About half of the companies had utilized local knowledge base. Need for training the local people calls for designing training services as complementary element to the offering. Here, focus of design expands from core offering to the system of product and services.

However, companies did not employ formal or systematic techniques to analyse local customer needs or identify key actors. Here, design-oriented exploratory and generative methods such as stakeholder maps, personas and customer journey maps (Martin & Hannington, 2012) can be valuable tools in supporting traditional customer and market analysis methods.

Design-oriented exploratory and generative methods such as stakeholder maps, personas and customer journey maps can be used for understanding markets and customers.

Design approach may be helpful in designing the system of value co-creation as well as aligning stakeholders' goals and define their roles. The stakeholder motivation matrix (Manzini, Jégou, and Meroni 2009) illustrates proposed solution focusing on the stakeholders' interests and consolidates the final motivations, benefits and contributions from each actor's points of view. Here, the key role and contributions of the design approach is to design and visualize proposals

of the offering, which are used to align stakeholders' goals, facilitate development in collaboration network and define stakeholders roles.

This proposition is based on comparison between literature review on design approaches for BoP markets and localization activities of nine Finnish SMEs. The number of companies interviewed was limited and the analysis was made numerically based on design approach theory. The proposition should be tested in more practical settings using different research methods, e.g. observing methods in order to get more concrete information. With the help of action research method knowledge about companies experimenting in using design approach methods when entering BoP markets could be gathered. Also analysing bigger companies could bring useful information how they use design approach methods and whether they benefit from them.

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