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**Research Report: MISI-2015-4**  
**Supplying Small Shops in Megacities**  
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# SUPPLYING SMALL SHOPS IN MEGACITIES

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**Summary:** Through a survey conducted on Kuala Lumpur nanostores, this project advances the understanding of the nanostore business and its supply chain in emerging Asian megacities. Based on this understanding, pilot initiatives for effective nanostore distribution models are recommended for FMCG companies to consider



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## KEY INSIGHTS

1. Key characteristics of nanostores observed in the emerging Latin America markets are also observed to be true of nanostores in Kuala Lumpur, an emerging Asian market.
2. Proximity of supplier to the shop is the primary reason in choosing a supplier for the Kuala Lumpur nanostores.
3. Existing distribution channels are not fully tailored to the nanostores. Innovative adjustments can be made to fully capitalize on this emergent opportunity.

## Introduction

Megacities, defined as urban areas with populations exceeding 8-10 million people, are a rapidly growing phenomenon across the world. It is estimated that at least half of the current world population is already living in urban areas, and more still are projected to add to this demographic. According to a McKinsey prediction, by the year 2025, the top 600 cities of the world will cover 22% of the population, and will account for more than half of the global GDP. Most of these large cities will be in emerging markets. Consequently, the creation of a

powerful emerging market strategy has moved to the top of the growth agenda of many multinational companies.

Megacities in emerging markets are typically of very high density, and as a result are often very congested. Population growth also typically outpaces mobility infrastructure growth in these megacities. The factors combined have also resulted in consumers in these environments preferring to shop in small shops close to where they live or work. This presents FMCG companies with a unique set of logistics challenges in reaching consumers in these emerging markets, different from those of the supply chain of big-box retailers that work well in the developed markets.

Small shops in emerging megacities are typically very small independently owned stores. Whilst some are of a similar size to that of a convenience store in organized retail (15-50m<sup>2</sup>), most are usually a lot smaller than that. It is for this reason these small shops are also referred to as nanostores. Recent study by Blanco & Fransoo estimates there are around 50 million small shops in the emerging markets. Considering that traditional retail garners at least half of retail market share in these economies, it is important for FMCG companies to be part of this supply chain.

The objective of this project is to identify supply chain best practices or innovative practices, particularly those that pertain to small shops in megacities in Asian emerging markets. The motivation for this project is to develop recommendations for small-scale pilot initiatives pertaining to the supply chain of nanostores for FMCG companies to consider

## Literature Review

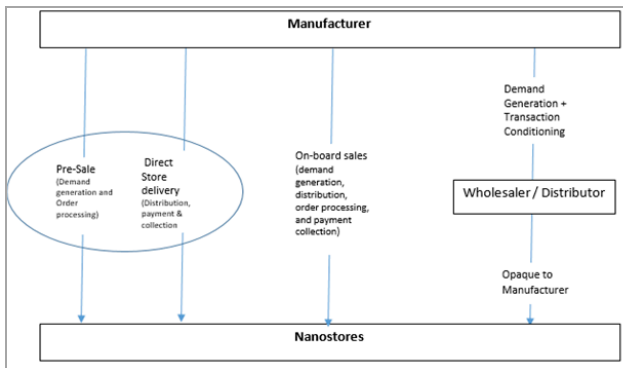
### Nanostore Characteristics

Blanco and Fransoo in their 2013 research on nanostores in emerging megacities characterised nanostores as very small, family owned and operated stores, with store areas ranging from 15 to 40m<sup>2</sup>. Nanostores have a low barrier of entry. In most countries, there is no formal regulation for setting up and operating the nanostores.

Assortment depth in nanostores is narrow due to limited space store. Store owners typically limit the depth in each category to a very small number. In addition, lack of access to credit facilities, low cash-at-hand and lack of back room also limits the amount of inventory that can be purchased. Available display space in nanostores is equally limited.

The customer of a nanostore is typically from the lower to lower middle income group. While their income has slightly increased due to the booming economies of the emerging markets, the disposable income of this group of people is still limited. Often, they would just buy sufficient products for a day's use, and they prefer to buy smaller packed SKUs.

A manufacturer planning to distribute products to the nanostores can reach the stores in many ways. Companies need to consider strategic trade-offs as they decide between direct versus indirect strategies to serve nanostores. Developing on-board sales, presales and direct store delivery capabilities allows a closer proximity with the channel, but requires complex operations to balance inventory, SKU assortment and cash flow.



**Figure 1:** Supply choices to nanostores (Blanco and Fransoo 2013)

### Distribution strategies in emerging markets

Ramirez discussed some of the key drivers that define the selection of distribution channels in emerging markets in a 2009 research. From literature review, the following were identified as factors that drive channel selection:

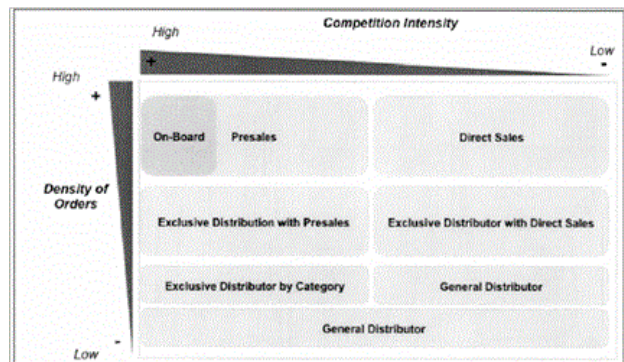
Factors	Description
Market Share	Percentage of total available market served by the company
Drop Size	Average quantity delivered to customer during a specific time
Product Complexity	Level of merchandising effort by manufacturer to sell the product
Frequency of purchase	Average number of times a customer requests an order in a given time
Geographical Concentration	Number of customers per unit measurement – given area

**Figure 2:** Factors that affect channel selection (Mallen 1996, Ramirez 2009)

Based on data collected from 13 Latin American brewery companies, it was observed that a pre-sale scheme is used to serve markets with high market share, medium to high drop size, high level of merchandising required, high frequency of purchase, and located in dense urban areas. On the contrary, on-board sales are used for markets with low market share, low drop size, less or no product merchandising, medium to low frequency of purchase, and located in rural areas.

From a discriminant analysis that was subsequently conducted, it was seen that the selection of the wholesaler and on-board schemes is motivated by the size of the market share and the number of customers in a geographical area. On the other hand, the selection of pre-sales is driven by the product drop size and complexity. Thus the four factors (market share, product complexity, drop size and geographical concentration) were proved to be good predictors of the type of distribution the participating companies would opt for.

Finally, through executive interviews, the top factors that drive channel selection and design were captured and analysed. Based on their popularity, the sales and distribution schemes were positioned according to the factors defined, resulting in the framework for distribution channel selection below.



**Figure 3:** Framework for distribution channel selection (Ramirez, 2009)

## Methodology

### Kuala Lumpur nanostore survey

With the lack of detailed data on the nanostore business and its supply chain in Asian megacities, we decided to conduct a survey on the nanostores in Kuala Lumpur. Whilst Kuala Lumpur is not technically a megacity, the population of the Greater Kuala Lumpur area comes close to a megacity, sufficient for the purposes of this research. The objective of the survey is to develop an understanding on the business and operation size of a typical nanostore, its profitability, products it sells, its supplier considerations and replenishment practices, and finally to understand their openness to exploring new ideas on the nanostore supply chain.

The survey, adapted from a questionnaire that was used for a similar nanostore survey in Brussels, Belgium included more detailed data gathering on 1) the supply chain aspects of the nanostore business particularly to understand the nanostore suppliers, factors affecting the choice of supplier and their inventory replenishment practices and 2) the nanostore profile - size of the nanostore business, both from a revenue and operations perspective and its customer demographics. Key commercial areas with at least 10 to 15 nanostores in each area were targeted for our potential survey sites, and eventually the KL nanostore survey was conducted with 28 nanostores across 8 key commercial areas in the KL central business district.

## Results

The typical KL nanostore is a small shop, in a shop-setting with a sales floor area of less than 25m<sup>2</sup>. It usually either occupies half a shop-lot or co-rents a shop with other small businesses. It also typically does not have a separate dedicated area for storage of inventory. Thus, a typical nanostore's inventory is what is displayed in the shop. For the few nanostores that have a separate storage area for storing replenishment inventory, the size of the storage area is typically small, less than 10m<sup>2</sup>.

The typical KL nanostore serves between 50 and 100 customers daily, mostly workers from nearby offices. However, given that most of the nanostores are in busy commercial areas, their customer mix are usually also includes tourists and foreign workers in the construction, restaurant and hospitality services industries.

At least 40% of the products that the typical KL nanostore sells are non-food products. The most popular non-food product categories at the KL nanostores are personal care, men's care and laundry care products. These include products such as shampoo, soap, toothpaste, toothbrush, disposable shaver and laundry detergent.

The most popular supply channel for a KL nanostore's product replenishment is the wholesaler, followed by the distributor and supermarkets. Despite the fact that the majority of their suppliers are not of a short distance away i.e. within 1km from their shops, proximity of suppliers to their shops is viewed as the primary reason for the nanostores choosing their suppliers particularly for the nanostores that use the wholesaler or supermarket as suppliers.

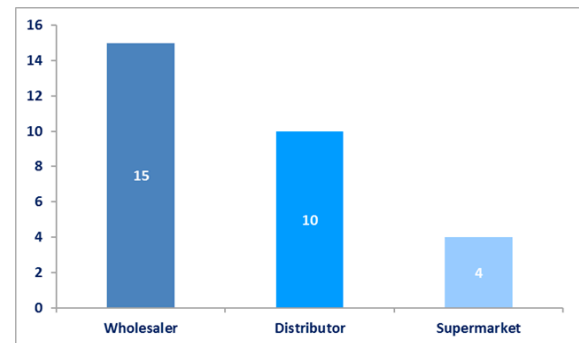


Figure 4: Breakdown of KL nanostore by supplier type

Majority of the KL nanostores only replenish when the stock for a particular product is completely finished. This could be attributed to the fact that most nanostores run their business on cash. Cash that is converted from inventory is used to finance the next replenishment inventory purchase. Thus, it makes sense for them to delay replenishment and get as much cash from their current inventories before triggering replenishment.

A number of nanostores responded that they replenish when stock for a particular product reaches a minimum threshold. These nanostores are typically those that are supplied by distributors. During their regular stock check visits, the distributors will identify the products that are at low inventory levels and will raise the replenishment order for those products with agreement from the nanostores. They are typically financed by supplier credit and supplier payments are usually consolidated and made on a monthly basis.

The typical KL nanostore differentiates replenishment frequency between fast-moving and slow moving products. For nanostores that differentiate replenishment based on product, there is a higher variance across the nanostores for replenishment frequency of fast-moving products than there is for slow-moving products. The replenishment frequency for fast-moving products ranges from as low as once a month to as high as 3 times daily for some nanostores. The replenishment frequency for slow-moving products on the other hand is once a month for the majority of nanostores. For nanostores that practice a common replenishment frequency across all products, they tend to replenish slower either once a month or once every 2 months. Regardless the differences in replenishment policies and frequencies, most

nanostores would replenish immediately and not wait for the next planned replenishment order or shopping when faced with a product stock-out situation.

## Discussion

Triangulation of findings from the survey and literature reveals the following key characteristics that the KL nanostores have in common with nanostores in the Latin America markets such as Brazil, Mexico and Colombia:

**Revenue and customer profile:** Majority of the customer still have low disposable income. Nanostores run on low cash, yet some also extend small credits to their customers.

**Physical characteristics:** Nanostores are small shops, with store area of 15 to 100 m<sup>2</sup>, ranging from street stands to mobile kiosks.

**Product range:** Popular products are food products and personal care products. Most nanostores sell smaller packaged SKUs, and have narrow product assortment.

**Replenishment practice:** Nanostores replenish frequently in small order sizes. They have limited shelf space, resulting in the narrow product assortment.

**Distribution channels and supply chain flows:** In a direct store delivery, the flow of cash, information and products is handled by a manufacturer's distribution person, usually the delivery person. In the wholesaler and distributor channels, manufacturer has no visibility to the nanostores.

## Conclusions

Nanostores are an essential part of the economy ecosystem in emerging markets. Nanostores do not only offer products, to the mass market at the right price-point but they also provide income to small business owners. Understanding the operational characteristics and the supply chain requirements of the nanostores is an essential step in effectively reaching over 5 billion consumers in emerging markets.

Because of their unique nature, the distribution channels to the nanostores should be configured differently to the distribution channels to the established retailers. There is a close proximity between the flow of cash, products and information when distributing to the nanostores. Inside the nanostores, there is fierce competition for shelf space, limited cash for orders, and limited information technology is employed.

In the case of Kuala Lumpur, most nanostores are situated in close proximity to their suppliers, usually wholesalers.

Whilst it is the most popular supply channel for the nanostores, this channel can still be improved by making innovative adjustments to the way it is currently operated, at least in the case of supplying nanostores in Kuala Lumpur. The biggest challenge with the wholesale distribution is the lack of visibility to the nanostore by the manufacturer. As a result, the manufacturer cannot influence product assortment at the nanostores. This offers an opportunity to optimize the wholesaler distribution channel by creating closer ties with the nanostores owners through the wholesaler.

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