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Stretching the envelope of Qualitative Research Methods to include Visual data

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Abstract

Visual research methods involve collecting data in the form of still and moving images, and is traditionally associated with social and anthropological studies. However, it also has a valuable role to play in business research, for example in being one of the techniques of data collection that could be deployed within an ethnographic or naturalistic research approach. This paper argues that the collection of visual images along with qualitative information can help provide richer insights into most phenomena, providing rich descriptions of both phenomenon and context. Visual data seems particularly relevant for the study of socio-economic patterns in emerging markets, where data available may be particularly sketchy, biased or inaccurate.

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Summary

This paper argues for the use of visual data collection to be recognised as a legitimate qualitative method in the researcher’s armoury.

Introduction

The extent to which visual data collection forms a legitimate part of academic business and management research remains minimal. There is a further difficulty where visual research methods seem particularly likely to be helpful. Multinationals (MNCs) and organisations with international growth strategies are prone to segment the markets of emerging economies in terms that they are familiar with, which is usually the socio-economic landscape of their host country. As Chattopadhyay and Dawar (2004) observe ‘multinationals bring their implicit understanding of market structures from developed market contexts’. Trying to segment emerging markets according to traditional Western patterns may not therefore always be appropriate and in consequence an organisation’s understanding of new and emerging markets may be flawed. Appropriate visual research techniques can be used to supplement available data and help to provide a more complete understanding of developing societies and thereby help organisations better assess market opportunities, as well as effectively respond to the population’s needs.

Problems with data resources for developing countries

Kenya is a key market in sub-Saharan Africa and according to the United Nations has one of the biggest rich-poor divides in the world (UN-HABITAT 2003a). Nairobi the capital has one of the most economically diverse populations on the planet. However, the depth and quality of available demographic information is not as rich as that of developed countries and this creates problems for those trying to understand the full range of contemporary society.

Relevant developmental, sociological, geographical and international marketing literature is useful. For example, classic texts by authors such as Todaro (1989) and Carter (1995), as well as more recent studies (e.g., Beall et al 2002), present theories and case studies relating urbanisation, as well as social and city structures in the ‘Third World’. Apart from these more general insights, data can also be gained from a variety of quantitative and qualitative sources including the census, non-governmental and government organisation reports, commercial market and social research agency data, as well as available visual data. However, many of these sources have inherent limitations, which are discussed in the following section.
Census

The census aims to provide accurate population figures and details of its composition. These data are essential for making realistic development plans and policies for the allocation of a country’s resources. The statistics are also relied upon when designing sampling frames for national surveys and are used by researchers studying social structure. However, census data can have limitations and may not always be reliable. Also since they are quantitative in nature they may not provide enough detail for an in depth understanding of the living conditions of the various social strata.

An accurate understanding of societal structure can only be gained if the total population has been correctly recorded. However, a census is a complex undertaking and disputes over the accuracy of the results for developed countries are common (e.g., Robinson et al 1993). Conducting a census in a developing country is frequently even more difficult and the quality of results often questionable (Philips et al 2003). A census in a developing country is particularly susceptible to under-representing the society’s poorer groups. For example, lower literacy levels mean that some members of Kenyan society may not fully understand the questions, or their purpose (Namwaya 1999). Others view the exercise suspiciously due to tribalism and widely reported government corruption (Santoro 1997).

While the census is a useful data source for developing countries such as Kenya it can at best be provisional. Population figures have to be estimated and as a result inconsistencies and disputes occur. For example, the population of the Kibera slum, reportedly the largest in the world (Vidal 2003), varies between 600,000 and 900,000 depending on the source, e.g., UN-Habitat (2003b), UNDP (2001), UN OCHA (2002), Collins (2001).

Non Governmental and Government aid Organisations

Foreign government development agencies and non-government organisations (NGOs) also conduct a significant amount of research that provides a valuable data resource. However, since a primary goal of these projects is poverty reduction they tend to focus on social groups experiencing ‘acute’ poverty. Many also have a rural orientation and/or focus on specific social issues such as water, sanitation and education. As the largest slum in the world, it is hardly surprising that Kibera has received considerable attention and the specific problems associated with living there are well documented.

Such reports from development agencies and NGOs go some way to providing insights into the more impoverished social groups, but are less helpful for understanding other parts of society.

Commercial Market and Social Research

Kenya has a well-established commercial market and social research industry. Market segmentation is an important aspect of it’s activity and involves first
identifying and then dividing the population into segments according to their different needs (Kotler et al 2002). Approaches commonly used for segmenting the East African market are based on Western systems and may not be totally applicable. For example, trying to segment the market on the basis of total household income is difficult, not just because people are unwilling to give this information, or have a tendency to over claim their incomes, but mainly because in Kenya spouses are actually unlikely to know each others income. The more commonly used methods of segmenting the population involve social class and residential classifications.

**Social grading**

Social class can be categorised in a number of ways. Most systems divide the population according to some hierarchy such as lower, middle and upper classes (Hoyer 2000). In Kenya a socio-economic index based on occupation of the main income earner is widely used. Traditionally they are graded on a scale A to E (e.g., Monk 1978), where A represents the most senior managerial, skilled workers with higher earning potentials and E the poorest unemployed. Developed in the West the social grading system assumes that income levels rise with more skilled / white collar occupations. However, in emerging markets this is not always the case (Hoyer 2000). There may also be dispute regarding the exact proportion of the population comprising each class. For example, Steadman (1998) presents population figures suggesting an insignificant proportion of social grade E’s in Nairobi, which conflicts with NGO reports concerning the slums.

**Residential classification systems**

Residential classification systems are another form of segmentation used in Kenya. This approach assumes that similar groups will live in similar locations and types of accommodation. However, in emerging countries with their dynamic and shifting natures this is less likely to be so.

Despite some of the potential limitations of market research information, it can still provide a valuable insight to the nature and structure of societies of emerging markets. In Kenya there is a considerable database generated by commercial market research organisations relating to Nairobi. Since many of the projects focus on the more financially solvent members of society they can provide fairly in depth insight to social grades A to D.

**Research background and objectives**

As the previous discussion has shown, despite considerable data concerning the populations of developing countries, it is frequently inadequate for gaining a detailed and nuanced understanding of a large and complex community such as Nairobi. In an attempt to gain a greater understanding, initially a series of focus groups were conducted with the middle strata of Nairobi society. However, when the data were analysed it was still evident that the qualitative information alone was not enough. As Craig and Douglas (2001 and 2005) discuss conducting research in emerging markets can be exceedingly complex and creative research
approaches need to be developed. Accordingly visual material in the form of photographs was also collected. These images significantly enhanced the qualitative data, providing a much greater insight into people’s living conditions. A larger scale visually oriented project was therefore designed to:

- Assess the extent to which traditional segmentation systems are valid, as well as identify any other indicators that may help to classify the population into various social strata.

- Generate a more balanced visual database of the society of a developing East African country.

Background on visual research

Visual research refers to the use of still and moving images. These are collected in conjunction with some form of narrative that provides context to the image and largely determines how it is interpreted. Visual research has been most commonly used in social anthropology and sociology, where it typically focuses on particular groups of the population (Banks 2001). It is becoming more frequently used in psychological research (Prosser 1998), as well as marketing and market research (e.g., Orient Pacific 2003). However, visual research per se is still disregarded as a valid methodology by many academic disciplines (MacDougall 1997).

For more developed countries a multitude of visual data exist for all the various social strata. Interest in this has evolved since the mid 19th Century when artists such as William Powell Frith painted images of people from the full range of contemporary Victorian society. In the modern day numerous research studies, as well as documentaries and ‘reality’ TV shows depict the array of Western living conditions and lifestyles. By contrast, in developing countries there are fewer visual studies and a dearth of research examining society as a whole. Where visual data are available they tend focus on narrow aspects of the society. For example, a large proportion of images highlight poverty and abhorrent living conditions. The pictures are often part of sensationalist Western media reports, or the fund raising campaigns of donor organisations. Whilst images of hopeless poverty may make a good story or help to raise funds, they may also generate biased and distorted impressions of the society and people of developing nations. For example, slum dwellers are more likely to regard themselves as ‘determined, upwardly mobile, pioneers’ (Collins 2001), rather than helpless and poverty stricken. Images showing the more positive aspects and achievements are much less frequently used (Alam 1994). The more commonly shown images become the symbols by which others identify and define these societies (Urry 2001). Unsurprisingly many in the West now view the people and society of developing nations according to these negative images. As a result some of the income that might have been be generated from tourism and corporate investment is lost.

There are of course relevant criticisms associated with visual research, which might discourage its use. For example, there may be a degree of ignorance or lack
of experience in the collection, analysis and interpretation of visual data. Images are captured at the discretion of the researcher and as such may be considered subjective. The viewer only sees what the researcher wants them to see and accurate interpretation relies on objective description of what the image portrays. An image and associated caption may be an accurate depiction, but it can equally represent a false or contrived situation. In addition, developments in digital imaging provide photographers with much greater scope for manipulating any images they collect. However, whilst these are valid points, concerns about subjectivity and researcher integrity can be raised for most research approaches. Qualitative data for instance relies on the researcher ‘subjectively’ reporting the key issues that they identify from the mass of descriptive information (e.g., Greatorex 1997). All research methodologies have their merits and shortcomings and no single approach can be viewed as ideal or comprehensive. Visual research should therefore also be viewed in terms of its potential benefits.

As with more traditional qualitative approaches, such as focus groups and in-depth interviews, visual research is a valid exploratory technique, particularly useful in helping to understand complex systems. Since it invariably involves detailed investigation of a phenomenon the information generated is not statistically representative of any population but highly descriptive and more valid than any form of survey. It therefore offers a depth of insight and understanding not forthcoming with quantitative approaches. Other advantages of visual research are that:

- It collects detailed information and can record things too complex to explain.
- Pictures and visual data can be collected and processed quickly.
- They allow others to gain a clear impression, without having to have been there at the time of data collection.
- Images may be analysed and revisited post data collection, aspects not initially considered important can therefore be examined.
- They have long-term value and can be stored for use in the future.
- Images can also stimulate memory, helping the researcher to recall a particular situation.

(Expanding on the work of Banks 2001 and Alam 1994)

**Methodology**

The research objectives were achieved through the collection of visual material in conjunction with in-depth interviews from a cross section of some 60 African Kenyan, Nairobi households. The Asian and White populations, whilst economically important, were not included as they comprise a much smaller percentage of the total. All data were collected in accordance with international market and social research regulations (e.g., Market Research Society 1999).

*Sampling and cooperation.* The initial challenge was to identify as representative as possible a cross section of areas and households to include in the study. Given the potential inaccuracies of census data and disputes regarding the
composition of society several organisations familiar with conducting research in Nairobi were consulted. Their input was used to help identify the areas, housing types and the proportion of each to make up the sample. Whilst it cannot be guaranteed to be exactly representative it is the best estimate given the resources available. It should also be remembered that the purpose of the study is to provide a detailed insight into living standards rather than the generation of a quantitative database for making statistically reliable inferences about the population as a whole.

The selected areas were visited and households recruited to participate. The purpose of the study was explained to potential respondents and a small cash reward and / or photographs were offered as incentive to participate. As Burns and Bush (2002) indicate incentives help to reduce non-response and encourage respondents to be more truthful. Some areas particularly the more upmarket locations protected by security gates and guards, proved more difficult to recruit. Where such difficulties arose, acquaintances and contacts were used to try and gain access.

_data collection technique._ Visual data was collected using digital cameras. The possibility of giving disposable cameras to the participating households was considered, since this approach was successfully employed in other studies (e.g., Ziller 1990). However, professional experienced data collectors were used since:

- Cameras are not widespread amongst all levels of the Nairobi population, the quality of images generated might therefore have been compromised;
- The time taken to amass the data would have also taken longer, particularly in the slum areas where peoples’ movements are less predictable;
- Specific images were required and with the disposable camera method there was the possibility that not all the required data would be collected;
- Respondents may also be tempted to take prepared or even fictitious images of their homes and belongings. Images may not therefore represent their actual living situation.

Data were collected by experienced field workers from a local market research agency. It was considered important to use Nairobi residents to collect the data, as a criticism of visual material from developing countries has been that it tends to be the work of outside foreign photographers (e.g., Alam 1994). Locals are familiar with the people, their language and culture, and better understand the underlying causes of social inequality. Accordingly they are more likely to be objective in the images they collect. Another advantage of using a local agency is that developing countries frequently require a research permit and a local agency will already have acquired this. To further encourage objectivity data collectors were given identical instructions and a list of the images and data they should aim to collect for each household. Field workers operated in pairs and in the less secure slum areas this number was increased.
Data collected. Data was comprised of both photographs and accompanying interview material. Photographs rather than video images were chosen, as this is the most frequently used and proven fieldwork technique of anthropologists and sociologists (Banks 2001). In addition, a camera is lightweight, sturdy, and easy to use, as well as being less intrusive and cheap. Between 10 and 20 images were collected for each household and included pictures of the:

- surrounding area
- dwelling / structure’s exterior and the living space inside
- utilities (including water source and toilet)
- groceries and household items

To accompany the images an in-depth interview was conducted with the main income earner or their spouse. Banks (2001) describes this information as the ‘external narrative’. The qualitative data includes a paragraph describing their general living situation / location, as well as a summary of key personal details such as occupation, rent and other expenses, number of dependants, broad income band, household goods and diet.

During the course of the study over 750 images were created. The pictures were initially used to create a photomontage or picture board for each household. On the basis of these, households were ranked in order of perceived living standards and then grouped together according to lifestyle quality. The qualitative depth interview data were then attached to these picture boards. Content analysis (Malhotra and Birks 2003) was used to identify the key characteristics of the different social groups and where possible key indicators of life quality were identified.

Results and findings

Initial analysis of the visual data indicate seven distinct, but broad accommodation types (Approximate monthly rentals are indicated in Kenya Shillings):

‘Super A’ category

This category encompasses the highest standards of living and includes larger ‘executive’ multi-room flats, as well as the top end detached houses and maisonettes with their own compounds. They are located in the more affluent urban and suburban areas where rents can be well in excess of Ksh. 50,000. Many Kenyans would prefer to buy rather than spend this amount on rent, accordingly many at the top end may be owner-occupied.

Other accommodation types and inhabitants associated with the ‘Super A’s’

Other social groups can be found living alongside the super A’s. Most upmarket detached houses and maisonettes have guest houses or guest wings. It is common for these to be rented out by the main house owner/occupier. Single
professionals or couples frequently occupy these (See bottom right of image 1 for an example).

Given the varied and interdependent population mix, up-market housing estates frequently have a diversity of communities, shops, and services, which cater specifically for the various social strata. Clearly traditional Western residential classification systems largely fail to capture this diversity within categories, as well as across categories.

**Higher living standards - ‘AB’ categories**

Those inhabiting the more affluent self contained flats and maisonettes pay rents up to approximately Ksh 30,000. Occupations include professionals in full time employment (though less senior and earning significantly less than the super A category). Some of those interviewed would not pay more than this in rent and were saving to build their own homes, either in Nairobi or up-country in their tribal homeland.

While the better areas generally house more up-market inhabitants, this type of accommodation may also include a wider range of social types. For example, in the small sample involved in the research we found AB and C1 occupants living in the same multi-storey building. The C1 household consisted of several employed individuals joining together and sharing the rent.

**Intermediate living standards - ‘C1 and C2’ categories**

These smaller flats and maisonettes fall in the rental range of Ksh 10,000 – 20,000 per month, but can be as low as Ksh 7,000 for cheaper city council owned houses. The cheaper maisonettes are single or double story structures, usually in rows of several units. They have multiple rooms with their own facilities and a small compound.

Generally C1 and C2 occupations comprise this group. However, as with the previous categories a range of social classes can be found living together in proximity. For example, in one block of flats a university professor (social grade A) lived in one apartment with the adjacent unit being occupied by several messengers and drivers (social grades D and C1) who each rented a room and lived communally.

**Lower living standards - ‘C1, C2 and D’ categories**

This category comprises single room bed-sits and small two room apartments within multi-story permanent structures. They are found a kilometer or more away from the city centre where land prices are lower. They are much higher density housing and frequently have many people living in these one or two rooms. They have communal facilities such as shared sinks, water supply and toilets. Whilst the toilet per person ratio is much better than in slum areas the conditions of these communal facilities is still often unhygienic. A substantial proportion (possibly up to one third) of Nairobi’s population lives in this type of accommodation. It houses people in permanent employment, with what might be considered middle
of the range incomes, such as office receptionists, policemen, and office juniors. Rents for this type of accommodation are typically in the range of Ksh. 3,000 – Ksh. 4,000 per room/month. Whilst they have a proper sewage system, other services are lacking or inadequate. For example, usually there’s no official rubbish collection and so waste accumulates and becomes a health issue. Consequently residents may also pay a small monthly fee for additional services such as communal rubbish collection and a security guard.

**Shanty or vibanda**

Shanty, or vibanda (used to describe temporary shelters rather than substantial homes in Kiswahili), equates to what is internationally described as slum areas. These are found in numerous parts of Nairobi and well over one third of the city’s population live in these areas. Shanty housing generally consists of temporary or semi-permanent structures, built upon flood plains, marginal or unoccupied land at the edges of the city’s residential areas. The buildings are constructed with roofs of corrugated aluminium sheets, walls of corrugated sheet, tin, mud, wood and sometimes cement, and floors of earth or cement.

Kibera slum is the largest slum in the world and as with any large settlement the slums have their own bars and shops or dukas. Given the informal nature of these settlements they lack the basic infrastructure, services and amenities taken for granted in developed countries. There is no refuse collection so solid waste is a constant problem and mounds of rubbish accumulate among the dwellings. Improvements to living conditions such as the building of makeshift bridges are generally the result of cooperative self-help groups amongst the shanty community.

Similar to cities in developed market economies around the world, standards of living in the slums of Nairobi appear to be largely determined by income level, number of earners, and the number of dependents. Those occupying the better slum areas are more likely to have some form of formal permanent employment, which provides some degree of financial stability. Images from such households show comparatively more affluent families with a variety of household products and well-equipped kitchen areas. Occupations include poorly paid jobs such as house-staff, cleaners, security guards, as well as drivers.

There is clear evidence that for some living in the shanty is a matter of economic choice rather than social deprivation. For example some slum dwellers interviewed were semi-skilled (social grade C1) with better paid jobs, but support families and/or are saving to buy land ‘up-country’ in their tribal region and live in the slums to save because it is cheaper.

**Conclusions**

Despite the information resources available it is not uncommon for organisations to have an incomplete or biased view about a developing country’s society. Consequently, organisations may not be equipped with an adequate overall view of the nature of their target markets. Research design that includes
collecting visual data in conjunction with a narrative can help to provide this insight; visual data capture both phenomenon and context with a level of clarity and economy that is not possible through narrative alone. Whilst not statistically reliable the data generated by this study is highly valid, providing at close quarters an insight to the nuances of the living conditions experienced by a broad range of Nairobi residents. The images collected clearly illustrate how standards of living vary and provide greater insight than qualitative text and quantitative data alone.

The use of visual data clearly and succinctly illustrates the diversity of living conditions amongst seven broad housing types (Detached houses, Flats, Guest house/guest wing, Maisonettes, One / two room flats, Shanty, Staff / servant quarters). In particular visual data clearly shows how conditions for each broad housing group varies in terms of security, water supply, power, sanitation, compared with those from more developed urban areas.

The study demonstrates some of the limitations associated with applying traditional non-visual data collections methods, and the application of established Western market segmentation techniques. Similarly, social grading alone has also been shown to be an unreliable predictor of living conditions, with some residents choosing to live in cheaper accommodation in order to support families outside Nairobi, or save to purchase their own land.

**Limitations**

While the use of visual methods here has helped generate new socio-economic categories, the use of visual data collection in combination with other methods seems likely to lead to enhanced research design, especially reliability and validity, for example in the development of socio-economic categories.
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