# CULTURE AND CONTEXT: AN EMPATHIC STUDY OF THE NEEDS OF ETHNIC CONSUMERS IN THE UK

**S.P. Taylor[a], C.A. Nicolle[b] and M.C. Maguire[c]**

*Loughborough Design School, Loughborough University, Loughborough, United Kingdom.*
*Email:* [a]*s.p.taylor@lboro.ac.uk,* [b]*c.a.nicolle@lboro.ac.uk,* [c]*m.c.maguire@lboro.ac.uk*

This paper describes a fresh approach to gathering rich data from ethnic minority consumers (EMCs) to better understand the affects of variations across subgroups upon consumers. The study investigated whether an EMC group in the UK face any barriers in the take-up of products or services. Subgroups in the study were defined as *religion* and *generations* to compare the differences and similarities of views and the effect of acculturalisation. An inductive, qualitative approach used family focus groups and some interviews with a questionnaire to set context. The research draws on previous cultural, marketing and design literature and current affairs and follows an inclusive design framework. The results successfully narrowed the research on a subgroup within the 1st generation and the usability of health services leading to a second study which is currently exploring the experiences of health services staff of providing care to EMCs to determine whether and how design may play a role in lowering barriers.

*Keywords:* Ethnic minorities, cultural dimension, design, generations, religions, acculturalisation/acculturation.

## 1. BACKGROUND

Ethnic minority consumers (EMCs) in the UK and the EU are accepted as being a heterogeneous group segmented by disparate cultures and religions. Current predictions indicate that the proportion of EMCs amongst the UK's population will rise above 7% over the next two decades [1] and their earning capacity will also rise through improved educational qualifications [2]. In an earlier paper, Taylor *et al.* [3] discuss these trends and the marketing, design and cultural studies which laid the foundation for this research, the key concepts of which are summarised below.

EMCs' spending power in the UK was predicted to reach a substantial £300 bn by 2010 [4] and their rising numbers and earning capacity offer growing, new markets for industry. Marketeers, keen to tap this potential, suggest that doing so requires a better understanding of how variations across ethnic subgroups affect consumer behaviour, particularly the influence of religion, generation and acculturalisation [5], i.e. the process of integration of smaller groups into a larger one. Is a different marketing approach required to attract EMCs [5, 6]? Is industry missing opportunities [6]?

Culturally-orientated design research into products and services has generated a multi-faceted body of rich information and, understandably in this age of information technology and global markets and manufacturing, the literature focuses predominantly on Human Computer Interaction and ethnographic studies in 'home countries' which do not need to consider the influence of acculturalisation. *Cultural usability* in design in the context of EMCs residing 'abroad', has gained prominence more recently [7].

### 1.1. About Culture and Product and Service Design

According to Storey [8] *culture* is a dynamic, social activity which is constantly under modification and we *create* culture through *cultural consumption*, a two-way combination of consuming and producing

*Research into Design — Supporting Sustainable Product Development.* *Edited by* Amaresh Chakrabarti
 :: *Published by* Research Publishing
ISBN: 978-981-08-7721-7

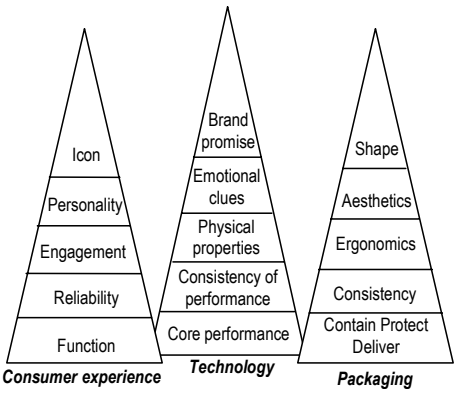


**Figure 1.** Maslow's Hierarchy of Needs model in design [16].

products and services. Cultural consumption is a means by which people define their lifestyles and express their identities and aspirations. Culture is, thus, also intimately linked to design, for it is design that transforms ideas into practical and attractive propositions for consumers by linking creativity with innovation [9]. However, research has also established that consumers' interactions with products and services differ due to different cultures influencing thoughts, motivations and behaviours differently, thus impacting on consumer behaviour [10–12] and also on success in the market place. Cultural variables like language, perceptions and cognition can create difficulties for some consumer subgroups [10, 11] especially when services and products are designed and delivered by people from other cultures [13]. This can compound well known problems in *usability* due to complex technologies used in product and services design [14, 15] adding to *economic* or *empowerment* barriers [15] and impacting on the quality of people's lives.

Successfully attracting consumers is a constant challenge for marketeers who collaborate with designers to produce and promote positive user experiences by appealing to aspirations as well as needs. To understand human motivation, models like Maslow's *Hierarchy of Needs* are popularly used to map consumer experiences and to drive *the Total Product* [Figure 1, 16] on which is mapped all that consumers receive, from the core benefit to intangibles like prestige, brand and status [17]. These models, however, have yet to be adapted to include 'cultural dimensions'.

There is also evidence of some tension between the results of the cultural studies discussed and research on acculturalisation. The latter confirm that EMCs are choosing life-style elements based on personal preferences [18, 19], which suggests some EMC groups are adapting well. This prompted the question of whether all subgroups are adapting equally well. Combined with the trends, this suggested that investigating whether EMC groups in the UK face any barriers in the take-up of products or services would present interesting challenges and opportunities for rewarding research.

## 1.2. Understanding Participants: Social and Societal Influences

In a user-centred approach, research commenced with a study with EMCs from the Indian Subcontinent settled in the UK. Some of the key social and societal differences and influences between the two regions were compared, as set out in Table 1:

This data indicates that participants are accustomed to living in multi-faith societies and, as literature confirms, the challenges would arise from other cultural variables like family vs. individual perspectives, cultural expectations, communication, etc. Castells [20] points out that all cultures are changing rapidly, however, due to the influence of information and communication technologies (ICT). Because culture is mediated and enacted through communication, the new forms and channels of communication shaped by ICT are impacting on individuals and societies, transforming beliefs, codes and cultures. He states the global flow of information is disrupting the sequence of passing

**Table 1.** Comparing Social and Societal Influences on EMC Participants.

| Indian Subcontinent | U.K. |
|---|---|
| 17+ major languages/scripts; 1 or more learned, English widely used. | 1 major language/script, used by the majority. |
| 5 major religions, different beliefs/rituals, strong influence on many. | 1 'Established Church' in a multi-faith society; moderate religious influence. |
| *High-context* society i.e. relies more on implicit, experienced-based knowledge. | *Low-context* society i.e. Relies on explicit, analytic, functional, abstract knowledge. |
| Emphasis on *Collective* (family; joint family). Elders usually live with family. | Emphasis on the *Individual* or immediate family. Elders like to maintain independence. |
| Respect: frequently ascribed to Position & Wealth (Status) & elders. | Respect: usually ascribed to the Individual. |
| Gender segregation & arranged marriages widespread; single females mainly pressured. | Negligible segregation, marriage by individual choice. |
| Cultural taboos (e.g. sexual matters, mortality of elders, marrying into another religion). | Few taboo subjects or limitations on marriage choices. |
| Communication: Unspoken word & body language unfamiliar concepts (1st generation); sentences are often repeated for emphasis; emotion expressed often. Social courtesy: males do not give priority to females; use of *please* & *thank you* often absent. | Communication: Unspoken word, body language plays a large role; sentences are repeated only if asked for; emotion expressed infrequently. Social courtesy: males (all ages) often given priority to females; please & *thank you* are used frequently. |
| Children's education: paid for, not mandatory; females excluded in some communities. Learning is often repetition based. | Children's education: free at the point of delivery; mandatory for all. Learning is more application based. |
| Health services: Paid for, no rationing. Social Services: Little or none, family reliance. | Health & Social services: Free at the point of delivery but rationing of services is a result. |

[Compilation: 5 National Government websites, 10, 11 & through personal experience]

cultural codes in an orderly manner down the generations [20]. This changing nature of cultures [16] suggests opportunities for multi-cultural societies to move away from a *static* view of culture towards commonalities for designing inclusive solutions.

Over the coming years, economic, social and political factors will challenge global perspectives as indicated by the communiqué for the recent G20 conference [21] which attested to the determination of these economically advanced economies to halve their deficits over 3 years — the implications are far reaching. Due to cuts in public services and value-for-money initiatives, the determination to support international aid will require governments to demonstrate to domestic taxpayers the value of those commitments. This background challenges product and service providers to find ever more efficient and effective ways of capturing a detailed understanding of their consumers.

## 2. INVESTIGATIVE STUDY

### 2.1. Hypothesis

Services, more than products, pose particular barriers for some EMC groups and a better design of visual communication may help to overcome some of the barriers experienced.

### 2.2. Aims and Objectives

This study had two aims: (1) To investigate whether Participants face any barriers, particularly cultural, in the take-up of products or services in the UK, and if so, whether inclusive design may play a role in helping to lower a barrier; and (2) To select a product or service provider for a future study to further investigate the problem.

Research was guided by the following objectives; to:

- Determine how participants are faring in the UK consumer market — whether any barriers are hindering access or use of products or services;
- If so, understand the nature of barriers and which subgroup(s) are most affected;
- Determine whether acculturalisation plays a role and whether participants wish to be approached differently for the purpose of marketing;
- Determine the implications and possibilities for inclusive design; and
- Identify a relevant product or service stakeholder from these results to investigate their perspectives, for holistically informing a future design solution.

## 2.3. Participants and Sampling

Purposive sampling included 33 participants of both genders from the Indian Subcontinent resident in the UK, i.e. from Pakistan, Bangladesh, India, Sri Lanka and Nepal. Subgroups were defined as *religion* and *generations* based on marketing literature [5, 6] to help reveal differences or similarities of views. Five major religions, i.e. Christian, Sikh, Hindu, Muslim and Buddhist, were identified from the national websites, however, Buddhists were not included in the sample due to low numbers in the UK and recruitment difficulties. Once ethical approval was gained, direct approaches were made to potential participants who were recruited from places of worship, small businesses, university libraries, work colleagues and extending these networks where possible.

Other literature and factors also guided the sampling strategy. Previous studies had largely rejected using *country* as a definition for *culture* [10], for borders alter and cultures overlap borders, thus sampling was fashioned around the commonalities of the region where people have much in common across borders by way of history, culture, languages and major religions. The subgroups were also deemed to be sufficiently specific for investigating barriers and preferences, whilst remaining broad enough to be inclusive and avoiding a niche approach. People from the Indian Subcontinent have been settled in the UK since the 1960's, enabling data gathering from different generations and revealing degrees of acculturalisation. Finally, the researcher shares the same background, which helped to promote empathy, translating at discussions and, hopefully, an improved understanding of issues during interpretation.

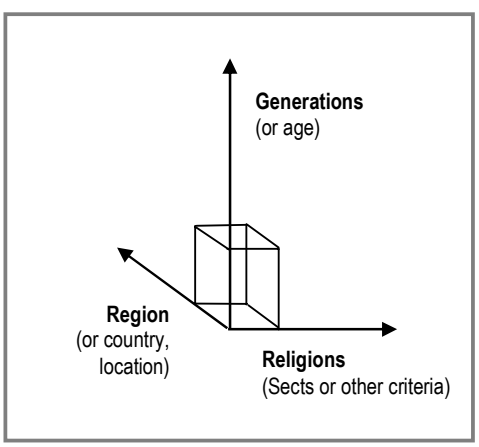


**Figure 2.** Flexible, scalable data-gathering concept.

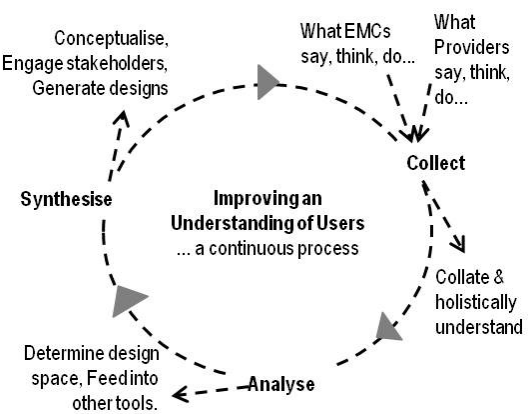


**Figure 3.** "Capturing the customer's murmur" [adapted 23].

## 2.4. Methodology, Methods and Tools

The overall research methodology adopted several key elements of the empathic design approach promoted by Evans *et al.* [22]. The approach embodies the principles *inclusive design* in its sensitivity towards the feelings and needs of users. *Inclusive design* is "The design of *mainstream* products and/or services that are accessible to, and *usable* by, *as many people* as reasonably possible without the need for special adaptation or specialised design" [23]. Clarkson *et al.* [24] add to this definition "user satisfaction in a specified context of use" and a consideration of cultural and cognitive differences.

Evans *et al.* [22] encourage researchers to include as many stakeholders as possible to gain a holistic understanding of issues for informing design solutions. They propose *The 10D's — the Essence of Empathic Design*, including *Don't assume*, *Delight your customers, Design with others, Develop your own tools*, etc. and a combination of 10 research and design methods to generate rich knowledge of the experiences and views of participants. Researchers are urged to be creative and innovative in developing their own tools. A continuous process for 'capturing the customer's murmur' (Figure 3) aims to move beyond satisfying users towards delighting them by offering significantly better understanding of their motivations and needs. This can be complicated, however, as people have needs and desires they may not be able to voice, are unaware of, find difficult to articulate or are unwilling to divulge. Thus, different methods are required to acquire different levels of knowledge [22, 25] (Figure 4).

An inductive approach with qualitative data-gathering was selected to answer a broad research question and gather rich data of participants' experiences. Family focus groups were mainly used to compare the views of different generations and religions, with some interviews to include widows and single people. Whilst organising focus groups is challenging, the family environment provided a familiar setting, for participants unfamiliar with research and aided translation for those with no literacy or English.

A composite of literature sources, i.e. design, usability model [3], marketing and research methods, were used to design questions to anchor the study in design and to answer the broad research question. Questions were mainly open and semi-structured with some closed for capturing context; kept simple and neutral, i.e. avoided reference to any particular cultural, religious or linguistic factors and structured into two equivalent sections, one relating to products, the other to services, i.e.:

- *Problems* (in the last 3 years): usability, accessibility, comparative context (i.e. easier 'back home), unavailable, never used and culturally important.
- *Preferences*: enjoyable, most useful, favourite, status, aspirational.

Product and service attributes were compiled from literature into a self fill list for participants to select the 3 *most* and 3 *least* important in purchasing decisions.

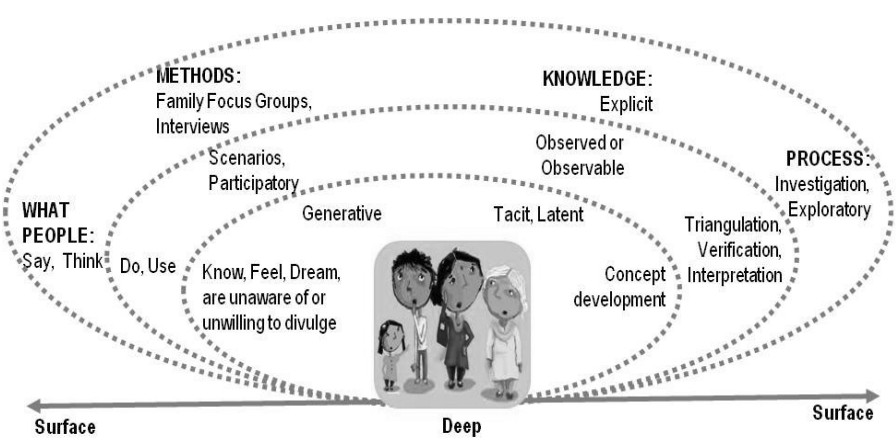


**Figure 4.** Understanding User's Needs: Levels of knowledge accessed by different techniques [Adapted 23, 26].

Visual aids were critical to focus discussions and to aid memory [3]. Products and services groups were designed in non-leading mosaics in easily recognisable, everyday living areas, i.e. kitchen/home appliances; computers/peripherals; UK Government services (hospitals, doctors, social services, police etc), and avoided brand identities.

In accordance with an inductive approach, a few questions on images/symbols were added as data analysis progressed. The tools (Table 2) were piloted and adjusted.

Data was subjected to thematic analysis as the study progressed. Transcripts were coded according to themes and context sources using a matrix with colour-coding designed to allow comparisons between generations, religions and genders.

**Table 2.** Tools and Methods employed in the Study.

| Purpose | Description of tools | Composite Sources |
|---|---|---|
| 3 most/least important influences on purchasing | Product & Services attributes *(self-fill list)* | [17]; *Quality in Use & Maslow's models* |
| Views by Generations & Religions: capturing consumers' murmur *(Family focus groups & Individual interviews)* | Products & Services: Barriers & Preferences *(Semi-structured, open questions)* | [3], [5], [16], *Maslows model*, brainstorming |
| | Visuals *(mosaics — everyday living areas)* | |
| Significance of visual communication | Symbols/images *(Semi-structured, open questions)* | Visual communication literature |
| Understanding Contexts: | Background & acculturalisation: Place of birth, education, residency, languages, festivals, driving, age etc. (*Self-fill questionnaire*) | |

## 2.5. Highlights from the Results

Of the 33 participants, 18 were females and 15 males. An exact balance by religion was difficult to achieve due to variations in family sizes, but aimed for 8 in each faith. As data collection and analysis progressed, it became apparent that barriers were more significant for some 1st generation, thus more of this group were sought for the sample. Generational age ranges were revealed as follows (and Figure 5):

| Generation | Age ranges |
|---|---|
| 1st ($n = 16$): | Late 20's to 75+ years (new arrivals to people settled in the UK for over 30 years; a subgroup have no English or no literacy) |
| 2nd ($n = 11$): | Up to 40–49 years (including those who went to school, but not born, in the UK) |
| 3rd ($n = 6$): | Currently, up to 25 years (those born and educated in the UK) |

This suggests the UK is on the brink of a 4th generation as the 3rd prepare to be married (cultural attitude).

**Views of Products & Services:** Participants unanimously — all religions, generations, ages, and genders — favour the UK's products and services to those 'back home' citing their design, features, quality and affordability. Satisfaction is expressed that '*everything is available now*' from stores or the internet, even in smaller towns and the quality of life is very good due to opportunities to progress, access to healthcare, mandatory education (for females also) and utilities. Appreciation of the respect shown to them by the indigenous public was often cited (although a few males felt issues of racism needed addressing). None expressed a desire to be approached differently during marketing, albeit those with no English would need help. Problems with products or complex technologies

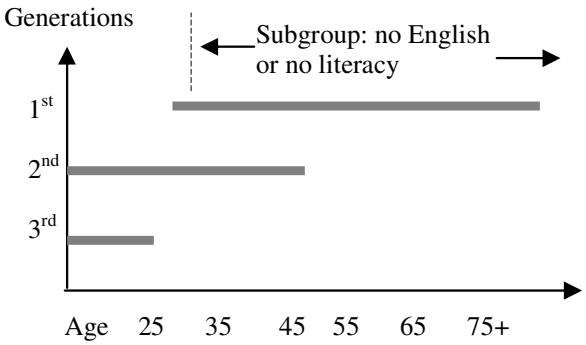


**Figure 5.** Generational age-ranges of participants (UK).

appear similar to that amongst the indigenous population [14] and elderly also rely on family help.

Audio-visual and ICT products are popular across the religions and generations, and audio-visual is especially critical for prayers and entertainment and a source of joy to the elderly and those with no English or literacy, who still rely on an oral tradition. By repetition they memorise one or two symbols to work appliances, although the symbols themselves are meaningless. Some elderly describe themselves as "adventurous" and happy to learn. More images in instructions are favoured by English literate participants from the 1st and 2nd generations to reduce a widening gap between them and the 3rd generation in using new technology and instructions. Problems are largely due to a lack of time for reading a lot of text and images are suggested as a means to save time, for greater empowerment and improving and extending usability. Provided images/symbols were *understandable*, more are also favoured as a means to help lower language barriers for those with no literacy or English and for participants generally whilst travelling in countries with unfamiliar languages.

**Acculturalisation**: The generations are acculturalising to differing degrees through education and choice, as confirmed in previous studies [18, 19]. Almost all participants, including those with no English or literacy, cite British culture influences their lifestyles; unsurprisingly this is highest for the 3rd generation. However, two 1st generation Sikh females did not cite British culture, although their responses to other questions suggest a good degree of adaptation, i.e. running their own business, driving, speaking/understanding English, including a grandmother who attends a gym every morning, which is unusual culturally. The reason may lie in social etiquette, pressure or an unwillingness to admit the influence of British culture, as two 2nd generation Muslims confirmed facing problems due to pressure from their community, e.g. a married male: "some of our community don't like it if I show my British side" and a single female: "my father would be very angry if I said British also".

**Barriers & Subgroup affected**: A subgroup from the 1st generation cite problems with using services particularly various healthcare services, confirming literature [26], and social services. Unsurprisingly, a lack of English and literacy are factors and the problem manifests itself particularly amongst females of all religions and many ages, i.e. late 20's to 75+ years, those resident in the UK from under 5 to over 30 years.

Examples of difficulties include a Muslim mother, in her 30's, resident for 10+ years, unable to communicate to ambulance staff why she had called them to aid her 10 year old autistic son: "I couldn't tell them what was wrong" and she had to ask her young daughter to explain. Similarly, a Sikh widow of 75+, resident for 30+ years, failed to resolve her health problem as her interpreter was absent: "I tried to explain to the doctors, they were very kind but we could not understand each other" (language barrier). She now wishes to learn English. A 2nd generation Sikh gentleman confided (in English) his anxiety about his widowed mother's inability to cope when they were at work and the children away in college and also whether they had the patience for constantly guiding her (language, confidence).

A Christian family resident for 3–5 years, with a grandmother literate only in Malayalam, appear unaware of future difficulties (latent needs).

All the generations and religions, but particularly the 1st generation with no English or literacy, expressed their appreciation, affection and respect for indigenous healthcare staff and the kindness of the British public. However, they cite difficulties arising from negative attitudes from some 1st generation Indian Subcontinent staff, whom they feel treat them with a lack of respect. An elderly Sikh widow said about her Muslim hospital interpreter "She didn't come; later she told me 'I have many others to look after"' and concluded, "She is a *Musalmaan* (Muslim) so she doesn't care about me." (inter-cultural, lack of respect-no status). A Muslim mother in her 30's abandoned her efforts to learn English, distressed by ladies in her community who made fun of her pronunciation (lack of confidence). A 1st generation, post-graduate Muslim male was scathing about staff at a GPs surgery who waved him away on two occasions saying "come back tomorrow" "like they do 'back home"' (cultural, lack of respect-no status). The examples represent repeated themes from across the discussions, although the sample size was limited.

## 3. IMPLICATIONS, CONCLUSIONS, NEXT STEPS

A notable difference between the elderly of both genders from the Subcontinent and those of the indigenous population is that the former traditionally and overtly shift their emphasis away from material things towards religion and companionship. As consumers, they frequently leave technology purchasing to the 2nd or 3rd generation. Dependence on the family is a cultural tradition, particularly living with or near the eldest son's family. The indigenous elderly, however, strive to maintain their independence whilst valuing companionship from family, friends and society and try to maintain their activities for as long as possible through technology and support services. These attitudes conform to Hofstede's study of differences in cultures [11], i.e. *collective* vs. *individual*.

Cultural factors appear to compound communication difficulties, albeit unwittingly, for the 1st generation female subgroup lacking English or literacy skills, especially if they were denied education. Early gender segregation may also add to shyness in addressing both genders of the British public. Whilst, traditionally, strong family bonds support dependent members, be they elders or housewives, if the context is *ethnic minority*, this subgroup is confined to communicating only with family or community, particularly where families have scattered. Family tensions are evident from 2nd generations' anxiety at leaving such elderly at home and from time pressures in managing daily tasks whilst providing constant support, whilst latent needs are present for others. Interpreters are used by many government services, but the problem repeats itself endlessly in participants' daily lives. In an *ethnic minority context* too high a dependence on family resulting in no English skills, suggests problems for the future.

Although previous literature indicates that some minorities do not like to complain, when asked, the 2nd and 3rd generation cited problems with products and with services. Interestingly, the 1st generation subgroup did not cite problems with products although usability issues are clearly present. Their issues instead focussed on healthcare and social services. One explanation may lie in Nielsen's [15] *three divides*, i.e. issues of product *usability* are superseded by *economic* (affordability) and pride in ownership as these products may be less affordable to many in the economies 'back home'.

*Respect*, unanimously cited as important, was especially so for 1st and 2nd educated generations, suggesting acculturalisation, i.e. respect is ascribed to individuals (Table 1).

The potential implications for the wellbeing and social integration of the female subgroup with no English and literacy, is summarised below from 3 perspectives: *individual*, *social* and *societal*. These are commonly used in cultural and social literature [20, e.g.] to understand issues holistically. The data also prompted using 3 perspectives: participants spoke about themselves (individuals), families and communities (social) and experiences with members of the wider society (interactions with service providers).

At an *Individual* level, a high reliance on interpreters can result in problems either from misinterpretation or stress from the absence of one. This can result in difficulties if there is a need

to communicate with emergency services, health staff or the public. Shopping is usually confined to Asian shops unless English speaking family are present. There are potential implications for health and safety in not being able to read instructions on products, loneliness and stress in the family from the clash between economic imperatives and cultural expectations, especially where there is no willingness to learn English. They receive low benefits from our information age's prolific digitised and printed information unless translated or in audio-visual formats. Potentially, these difficulties can lead to low empowerment, low confidence and almost static mental models.

At a *Social* level, this subgroup is largely confined for companionship to their own communities or language groups. They can be potentially vulnerable to vested interests in their communities, isolation if their family scatters rather than maintains a joint-family, have low or minimal job prospects, can be vulnerable to exploitation from lack of choice and less able to guide new generations in the host culture. Cultural taboos like avoiding discussing issues touching on the longevity of elders pose challenges for the younger generations to suggest the benefits of learning English to prepare parents for the future.

Finally, at a *Societal* level there is a high cost/time burden for multi-cultural societies where healthcare and social services are free at the point of delivery in employing interpreters in multiple languages, written translations, cost of materials and distribution, etc. These worthwhile efforts are helpful, but temporarily so, for the problem is repeated endlessly when the person returns home. As a result society has low interactions with this subgroup, whose economic contribution is low and who cannot acculturalise even when they wish to.

The results suggest that it is acculturalisation we should be promoting to empower this subgroup not multiculturalism, as democratic societies like the UK place few barriers on people practising their cultures. Acculturalisation, however, is difficult to achieve without a reasonable degree of communication. Promoting the benefits of English literacy to this subgroup merits consideration, however, this will take time and sensitive planning.

That healthcare is a strong theme is not surprising as it is universally important irrespective of culture or age and would lie at the base of Maslow's *Hierarchy of Needs* model under *Physiological* and *Safety* needs. Previous healthcare research [26, 27] confirms the positive impact of visual aids to help lower communication and cognition barriers for people of different cultural backgrounds and with no/low literacy or English.

**Next Steps:** The National Health Service was selected as the second stakeholder group for further research to understand staffs' experiences of services to EMCs and to review current aids used in communication. The objectives are to identify what is already working well, whether any gaps or problems offer an opportunity for design to play a role and, if so, how, to help improve user experiences for EMCs and other patient groups with similar problems. Results from the current and following study will be combined to generate and evaluate design concepts and recommendations in future research.

This research hopes to contribute an adaptable, scalable approach to gathering rich data of users' experiences across generations and religions and to contribute socio-cultural insights through an improved understanding of EMCs' changing perceptions to provide current contexts for designers, providers and marketers so that models may be adapted to include relevant cultural dimensions. It may contribute, in future, elements to the inclusive design process thereby helping to improve social integration.

## REFERENCES

1. Laing A, Kirkup J (2009) "Immigration will push British population to 70 million" [WWW] The Telegraph. Available: www.telegraph.co.uk/news/newstopics [Accessed 24.10.09]
2. Edinburgh University (2009) "Careers Service: Ethnic Minority Students: Positive about Diversity." [WWW] Available: www.careers.ed.ac.uk/ [Accessed:17.6.09]
3. Taylor SP, Nicolle CA, Maguire MC (2010) "Preliminary Study of the Cultural Barriers which may affect Universal Access." In: Proceedings of 5th Cambridge Workshop on Universal Access & Assistive Technology, CWUAAT

2010, Fitzwilliam College 22–26 March 2010, pp. 3–14. Clarkson PJ, Langdon P, Robinson P eds. Cambridge University Press.
4. BITC (2007) "Facts and Stats: BME Spending Power." [WWW] Business in the Community. Available: www.bitc.org.uk/ [Accessed:09.12.08]
5. Burton D ed. (2002) "Incorporating ethnicity into marketing intelligence and planning." [WWW] Available: www.emeraldinsight.com/ [Accessed: 3.11.08]
6. Emslie L, Bent R, Seaman C (2007) "Missed Opportunities? Reaching the ethnic Consumer Market." International Journal of Consumer Studies Vol. 31, pp. 168–73. Blackwell Publishing.
7. Institute of Ergonomics (2009) "Protocol Workshop on Intercultural Usability" 19–20 Nov 2009. IAD, Darmstadt.
8. Storey J (1999) "Chapter 3. Cultural Consumption as Communication." In: Cultural Consumption and Everyday Life. Storey J and Turner G eds. London: Arnold.
9. Hunter M (2010) "What design is and why it matters: Triple bottom line." [WWW] UK Design Council. Available: www.designcouncil.org.uk/about-design/ [Accessed: 15.06.10]
10. Jylha M (2007) Comparisons, Cultures, Contexts. [WWW] European Journal of Ageing, Jun. Vol. 4, (2) Available: www.springerlink.com [Accessed: 5.11.08]
11. Rau PL, Gao QA, Liang SFM (2008) "Good Computing Systems for Everyone — how on Earth? Cultural Aspects" *Behaviour & Infm. Tech.* 2008. Vol. 27, (4) pp. 287–292.
12. Carroll M (2009) "Designing the customer experience" [WWW] Available: www.usabilitynews.com/news/ [Accessed: 06.02.09]
13. Schifferstein HNJ, Hekkert P eds. (2008) "Product experience" 1st edn. London: Elsevier.
14. Clarkson J (2008) "Human Capability and Product design." In: Product Experience Schifferstein HNJ, Hekkert P eds. 1st edn. London: Elsevier pp. 165-6.
15. Nielsen J (2006) "Digital Divide: The Three Stages." [WWW] Available: www.useit.com/alertbox/digital-divide.html [Accessed 27.11.08]
16. Rait J (2008) "Design Pyramid" [WWW] Design_at_the_edge Available: http://ic-pod.typepad.com/design_at_the_edge/design_pyramid/ [Accessed:15.3.09]
17. Masterson R, Pickton D (2004) "Marketing: An Introduction" pp. 192–5. Maidenhead: McGraw-Hill.
18. Sekhon YK, Szmigin I (2005) "Conceptualizing Ethnicity and Acculturation of 2nd Generation Asian Indians in Britain." [WWW] Available: www.amsreview.org/ [Accessed:7.6.09]
19. Balakrishnan TR, Maxim P, Jurdi R (2005) "Social Class vs Cultural Identity as Factors in the Residential Segregation of Ethnic Groups." Canadian Studies Population, Vol. 32.2, pp. 203–27.
20. Castells M (2000) "The Rise of the Network Society: The Power of Identity." 2nd ed. Oxford: Blackwell Publishing Ltd. pp. 1–2, pp. 354–8.
21. "G-20 Toronto Summit Declaration (2010) June 26–27, 2010" p. 3. Available: www.g20.org/Documents/201004_communique_WashingtonDC.pdf [Accessed 27.6.10]
22. Evans S, Burns A, Barrett R (2002) "Empathic Design Tutor" International Ecotechnology Research Centre. Cranfield, UK: Cranfield University. pp. 5–7, 10, 15–17, 26, 60.
23. About Inclusive Design (2005) "Definition British Standards Institute 7000-6, 2005". Helen Hamlyn Centre. Available:www.hhc.rca.ac.uk/research/id/index.html [Accessed 15.6.09]
24. Clarkson J, Coleman R, Keates S, Lebbon C eds.(2003) Inclusive Design: Design for the whole population." London: Springer-Verlag.
25. Sleeswijck-Visser F, Strappers PJ Lugt RVD, Sanders EBN (2005) "Contextmapping: Experiences from practice." *CoDesign* 1(2): pp. 119–149.
26. Ngoh LN (2009) "Health Literacy: A barrier to pharmacist-patient communication and medication adherence." Pharmacy today: 2009 (Aug), 15(8):45–47.
27. Katz MG, Kripalani S, Weiss BD (2006) "Use of pictorial aids in medication instructions: A review of the literature" American Society of Health-System Pharmacists: 63 Dec 1, 2006.