Experimenting ‘Design’ to reveal Cultural Factors

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Abstract:
New designs should support the everyday environment and should refer to existing designs that are familiar to users. These would help to motivate designers to develop culturally localized designs that allow products to be manufactured and relevant to users’ cultural contexts. Despite the growing number of studies on cultural factors in marketing research, designers have not been given much opportunities to present their designing skills and thinking in conducting such research related to cultural factors leading to product improvement. This article describes a framework and results of adapting a “practice-led” research-based approach to understand cultural factors of a specific ethnic group in Malaysia whose members migrated from traditional rural life to urban industrial setting. Findings from adapting this method have been generated into a design-research guideline for designers and product planners to understand users’ culturally determined needs when developing a cultural product.

Keywords: culture, product design, design research.
The original motivation for this work was to seek ways for designers and producers in Malaysia, as an emerging industrial nation, to provide appropriate products for local consumers and their culture rather than simply responding to global norms. However, it was soon recognised that the central factor was not so much the particular conditions in Malaysia but rather that the population was experiencing rapid changes. It was seen that similar economic and demographic shifts were happening in many parts of the world and design works moved on to consider the role of designers in this context.

User-Designer-Product Interaction
Product developers are coming to understand how the interaction between users, products and development can play an essential role in product development process (Bekker & Koenig 1992; Taylor et al. 1999:217; Von Hippel & Kostreva 2002:611). These authors indicate that a successful product or system requires a high level of interaction between designers and users. In many cases, however, designers are still predicting the users interactions with products based on their previous knowledge and experience. Popovic (1992:26) argues that in most product development processes, designers still find it difficult to predict the behavior of users needs with respect to the products they use. Thus, according to Jonas (1992:216), designers should take part and engage more in the social life of the users by experiencing their lifestyles.

Norman (1988:68) points that these are a number of cases of products that were produced without proper research into users needs and limitations which led to problems involving users' interactions with those products. In general, research reveals that non-physical aspects of user-experience such as aesthetics, variety, pleasure, product 'spell' and cultural factors tend to be neglected, overlooked, misjudged or entirely ignored in the pursuit of 'technical solutions'. Functionality, usability and ergonomics, in most cases, the manufactures tend to make the least amount of change possible to make an existing product acceptable to the targeted culture (Lawson et al. 2003:9). Boba et al. (2001) and Rodrigue et al. (2006) also claim that many non-physical aspects of designing a product have been overlooked in product development processes.

Designing for Culture
Outstanding design can come about via many sources of inspiration, ideas and experiences involving a wide range of specialists from different fields of expertise (Roberts 2002:72). Nevertheless, many factors that have influenced the design developed by manufacturers have been overlooked. For example, how products become accepted by users is an issue which tends to receive much less emphasis than technological changes and material-oriented product development. Therefore, the benefits made by cultural factors in the marketing of a successful product has largely been neglected. It seems to be a forgotten element in the product development process. However, a number of scholars and design thinkers have emphasized the importance of integrating the culture of users into product development. Thus, over the course of recent years, there has been an increase in interest in understanding users' cultural needs as an important aspect of the design process (for example, Fernandes 1995; Hao, 2009). Bloch (1998:22), in his consumer response studies, argues that parliaments for product form are much driven by cultural factors and claims that nearly all Japanese auto manufacturers are setting up their studios in the United States with the aim of ensuring the commercial success of their products by giving more attention to understanding Americans' culturally determined needs and demands (Fernandes 1995:96). Bloch also acknowledges that in some states that a region's culture and quality of life are significant elements in the product development process despite moves towards globalisation, as products reflect the economic, social, and environmental aspects of the market. Bloch also claims that a product's function, ergonomics, and cognitive aspect should be understood by designers and argues that the key ingredient in developing a successful product is a degree of which, he called as 'cultural fit'.

According to Portfliol (1997), a successful product should be seen not just as a technical solution but also as a package of cultural solutions. Its success is also due to a successful understanding of the values, cultural norms and habits of the users into product development. Thus, over the course of recent years, there is an increase of interest in understanding users' cultural needs as an important aspect of the design process.
could be useful in informing the design development stage. Further, Rust (2004) explained that designers have the ability to imagine new circumstances and could creatively 'design' a practical environment for people to experience a "new world."

Designing and doing research formed the main components of the methodology for the investigation. In general, methods and techniques of integrating design into the research process or designing research were generating a goodwill amongst the academic community and design therapists (Gravina 1999, Burdick 2002). However, in current design research situations, they have proven to be useful and effective tools for gaining insights into the user with reflective processes catalyzed into the design activities as well as informing design strategies. In practicality, both designing and analytical actions are continuously interrelated and contributed to each other. The first part focuses more on an account of how products interact with stakeholders in their cultural environment.

The second part focuses on the process of developing a specific design for the cultural products and explores techniques that designers might use to work in this area. Here, the design work is a continuous process alongside the social inquiry and responding to insights emerging from it. In turn, a set of conceptual designs were developed in the practical design work and were being used as provocative objects (conceptual designs) bridging users' cultural determined needs and imagination to products while the programme of interviews and group work (design workshops and discussions) proceed. The conceptual design work continues to be a continuous process alongside the social inquiry and responding to insights emerging from it. In turn, a speculative conceptual design has been used as instrument in the research as the programme of interviews proceeds.

Both processes, designing and doing social inquiry is much more likely to provide good results for the investigation. Thus, in the designing process the output could only reflect to the possibilities but with no absolute guarantee since the design work was validated by the social inquiry work onwards.

Analysis

The analysis process has been developed based on social science's qualitative data analysis techniques in generating themes and coding. The user with reflective processes catalyzed into the design activities as well as informing design strategies. In practicality, both designing and analytical actions are continuously interrelated and contributed to each other.

Methodological Findings

The section will only be focusing on methodological aspects. Part of the research work was to produce conceptual designs in the form of visualisations to assist researcher and research subjects in exploring possibilities in user-product interaction. It is also to explore different ways of using these design visualisations with stakeholders. The presentation format, the concept selected and the physical settings for the interactions with stakeholders affect the productivity of interviews and discussion sessions. Some of the productive approaches identified in the research work influence stakeholders' engagement.

Presentation formats influence participants' engagement. The early design presentations were in printed handout form and in 2 dimensional visualisation formats. Having these visualisations to the interviewees and workshop participants allowed a quick and easy access to familiar forms to the participants, the actual use and practical problems of the designed product could not be tested to evaluate the real practice and actual environment where the product should be operating. In this situation, participants had to imagine how the products might work based on the visualisations shown to them. The alternative approach of changing its presentation format from photo realistic into 2d illustrations has triggered participants engagement not only to discuss about the physical aspects of the products but also to other non physical aspects such as its practicality and function.

Selecting familiar cultural types (such as kitchen tools) triggers active participation. Having conceptual designs developed from existing familiar cultural products also encouraged active participation in the stakeholder sessions. Using these familiar forms did not just in developing future design ideas, it also mobilised the implicit elements of culture through participants' active participation. The alternative approach of changing its presentation format from photo realistic into 2d illustrations has triggered participants engagement not only to discuss about the physical aspects of the products but also to other non physical aspects such as its practicality and function.

To connect with the cultural constraints in engaging with participants, some cultural constraints need to be considered. The researcher discovered that each of the initial conceptual activities in the research required a different approach. For example, expert interviewees could be contacted formally and directly because they shared the researcher's professional understanding and recognise the value of the research, whether they were cultural authorities or
a policy expert. Thus, an expert interview does not require any special care in preparation or incentive for participation. However, the situation was different when it came to conducting home interviews. There was no formal source that could lead the researcher to suitable people. This required the researcher to have some knowledge of local settings. For example, some participants were identified that particular elements of culture might be useful for designers in new product development. This kind of contextualised understanding cannot be gained in studio work (Ireland 2003:22). However, it requires engagement with stakeholders and, as Bowen (2009: 137) Rahman & Rust (2009) and Rahman & Jones J.C. (1992). Art, Robert Gordon University, Aberdeen, Scotland. 1-3 April 2009.

In summary, it was observed that the designer could not predict the course of cultural factors. However, through this practice-led approach, the work has identified that particular elements of culture might be useful for designers in new product development. The kind of contextualised understanding cannot be gained in studio work (Ireland 2003:22). However, it requires engagement with stakeholders and, as Bowen (2009: 137) Rahman & Rust (2009) and Rahman & Jones J.C. (1992). Art, Robert Gordon University, Aberdeen, Scotland. 1-3 April 2009.

References:


