

A New Market Research Dimension: Why Progression Is Required On 3D Methodologies

IJMR Young Research Writer Award 2011 Entry

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The Case for 3D

Market Research faces several, sometimes contradictory, criticisms; it's 'not real' enough, it uses new technology too readily/it doesn't use new technology enough, it takes too long/it's too flash in the pan, it costs too much, it is not globally consistent – to name a few.

But now, perhaps Market Research has found a new technology that has the power to help silence its critics. A technology that, if used correctly, has the power to take Market Research to a whole new dimension – 3D technology.

3D technology is the latest in a long line of technological innovations that society has embraced and which also has potential to benefit Market Research methodology. Such benefits can be distilled into three key areas – all areas where Market Research has been criticised, but also areas that are in fact, to those who know it best, areas where Market Research is capable of excelling:

- Trends
- Realism
- Practical Facilitation

Trends are not just something that researchers investigate, but something to be embraced for the power they potentially offer research methods. By embracing current technology, Market Research is able to keep in touch with how brands and consumers are operating and communicating – this is fundamental in delivering relevant and up-to-date insight.

Realism is something Market Research continuously strives to achieve in its methods. With 3D technology, an opportunity has arisen to improve this and offer the 'real perspective' needed to better mimic real life consumer situations accordingly.

The **Practical Facilitation** of research is a core logistical hurdle researchers face regularly. 3D technology can aid this facet of research by improving daily fieldwork issues such as stimulus transportation and quality.

Even with its great promise to combat some of the biggest criticisms of Market Research, whilst also improving its quality, the use of 3D technology is coming under fire. This paper sets out to answer the critics of 3D technology by demonstrating its potential in the three core areas outlined previously.

A Growing 3D Trend

When thinking about why we need to increase the use of 3D technology in Market Research, a good place to start is by asking; who are the most important people in the research process from an agency standpoint? Arguably, the response to this is a) those we study (consumers) and b) those that fund us (clients).

3D was once a gimmick for consumers, but now it is seen as a serious communication medium – as shown by the £700m ticket sales generated by Avatar in just 3 weeks (*Marketing Week, 2010*). This once upon a time gimmick is finding its way into consumer's homes as well, with 3D televisions selling better at this stage in their lifecycle vs. HD models. So much so, that Sony anticipates that 40% of UK homes will have 3D televisions by 2014 (*Computer and Videogame, 2011*).

With such high product penetration estimates, it is clear to see that 3D as a medium has moved from the limited offerings of the big screen to mainstream layman culture. The 3D TV market is also aiming for large growth after initial penetration is achieved – with over 100 channels estimated for launch by 2014 including arts, music, sports and movies (*3D TV Watcher, 2011*). 3D TV is clearly aiming to reach a widespread audience, aiming to be mainstream and thus strengthening the case for Market Research to use this technology in its methods.

Consequently, rising consumer interest in 3D technology has driven brands (our clients) to take action – a prime example is Virgin notably increasing their 3D content in 2011 (*Brand Republic, 2011*). Furthermore, the broadcasting of sports such as tennis in 3D and rumoured large scale 3D coverage of the 2012 Olympics will likely result in an upsurge of 3D advertising. This is undoubtedly due to consumer migration to this technology; to quote Damon Jones of P&G “If consumers continue to go there, we will go there” (*WARC, 2010*).

So, it goes without saying, if consumers and brands ‘go 3D’, Market Research needs to follow suit. Just like the rise in use of Facebook and Twitter has led to the advent of social media research, Market Research needs to start ‘thinking 3D’ in order to keep in line with how brands are

communicating with consumers – a trend that has started with Market Research agencies evaluating the success of 3D showings of sporting events (*Research Live, 2011*). As 3D as a medium grows, so too will the need for agencies to conduct 3D based work and the need for researchers to fully embrace this technology, being charged with what will likely be first steps towards this – communications research issues such as 3D campaign testing and 3D campaign evaluation.

Realistic Goals

3D technology is not just a consumer trend that needs to be embraced; it can also benefit Market Research by enhancing its realism. Within his AFFECT model of critically analysing Market Research, Phillip Graves states that research should be conducted in an appropriate environment that has contextual influences present like a real situation and that many contemporary methods fail to do this (*Graves, 2011*).

Product Tests

3D technology in research could potentially add such contextual influences. An example of how it could do this can be seen by looking at the differences between a 2D online product test (with a 2D image of the product) and a 3D online product test (with a 3D image of the product that can be rotated).



As shown above, a 3D display of the product adds realism by allowing respondents to view the product from all angles to the extent they can read the ingredients – enhancing the impression the product is in-hand. A head-on/front-facing 2D image lacks all of these features and thus arguably removes ‘real’ contextual influences and lacks a realistic feel.

The benefits of using such 3D images in product tests has been highlighted by a lab experiment in the US that compared qualitative product tests using both 2D and 3D images. It was discovered that respondents found the 3D images to be more lifelike and meaningful than 2D images which

appeared repetitive and visually straining (*Richarme and Colias, 2008*). It is the realistic and meaningful nature of 3D images which gives this approach the contextual influences Graves claims research environments currently lack.

Arguably, all of the benefits of a 3D approach could be garnered through a face-to-face method. However, given the cost of face-to-face research and the prevalence of internet research – combining a realistic (3D rotational images) approach with a popular and budget conscious research medium (online) seems both practical and beneficial to both client and respondent.

3D NPD Research

Within NPD research, constructing physical prototypes can be expensive. Often when it is not practical to generate prototypes – such as in the early stages of NPD – products are just shown as image boards, often not displaying ideas to their full potential. 3D holograms would allow more realistic product stimulus to be generated at all stages of NPD, enhancing the quality of stimulus in a similar way to how a 3D rotational image is superior vs. a 2D image in a product test. Further, this would allow early stage NPD concepts to be generated to life sized scale. This would especially benefit sectors that produce large sized products – such as automotive and electronics – which generally have to scale their NPD ideas down in size in order to fit on concept boards, potentially with adverse effects on results.

3D Conjoint

Product and advertising testing are not the only forms of research that could benefit from 3D technology. Conjoints too can be enhanced by a 3D appearance. The most common conjoint currently used is Choice Based Conjoint (CBC) in which respondents are placed in a trade off situation and have to choose which of a list of products – all with varying levels of the same attributes – they would like to buy (*Sawtooth, 2010*). One of the core reasons this technique is employed is to mimic real life decisions (*Poynter, 2006*). Despite this realist goal, CBCs are typically shown in a very flat manner to respondents:



Inclusion of 3D product images would help bring simulation tasks to life and increase their realism vs. real consumer situations. German researchers have experimented with this and found that a CBC using 3D images outperforms a CBC using 2D images in comparability to 'dummy' (real life) benchmark data (*Berneburg, 2007*). In tangible terms this means that the results from a computer hosted CBC with 3D images are more comparable to a paper conjoint with real products than an on-screen CBC with 2D images.

The core question about 3D conjoint is; why has it not been investigated further when it appears to hold benefit for researchers? Currently, leading online research suppliers do not offer this tool but given that a 3D version of this tool would enhance one of its most inherent benefits – comparability to real life situations – utilising 3D technology in one of quantitative research's foremost techniques would seem a natural progression.

Practical Facilitation

3D technology not only enhances 'research reality', but it can also improve the way research is practically executed, particularly under the remit of global product research. Often a core logistical problem with such studies is the cost of sourcing and transporting products to international research venues, adding budgetary and timing restraints. However, 3D technology can be leveraged to tackle these issues.

Holographic technology company Musion has been involved in developing a series of product holograms for a range of sectors – from automotive to mobile (*Musion, 2011*). Should this technology be transported to the Market Research sector and leveraged fully by researchers, it could remove both logistical and cost issues in global product tests. TNS already offer holographic car clinics – so the idea clearly is viable (*TNS, 2011*). Not only is it viable, it is practical as well. A major spend on research projects is travel, so if the cost of stimulus transport could be decreased by using holographic technology, Market Research would be more efficiently costed. Additionally, in sectors such as automotive, sourcing vehicles for car clinics can be expensive and time consuming for agencies. If such products could be generated via hologram, time and cost savings could be made once hologram technology reaches a widespread and affordable status.

3-D-oubts

Despite numerous beneficial reasons for the increased usage of 3D technology in Market Research there are concerns over its potential. Doubts have arisen over whether 3D is merely a fad, how it will affect respondents, whether it is truly global and cost efficiency.

3D Faddism

Some critics of 3D have labelled it a 'temporary fad'. This criticism has been largely driven by the sales struggles of Nintendo's recently released 3DS gaming system and consumer complaints regarding the strain 3D viewing has on the eyes (*Techno Buffalo, 2011*). However, these are minority reports, which are to be expected with any innovation. They do not mean 3D technology is a fad. For example, 17.5% of UK adults have still not used the internet – does this mean it is a fad? (*ONS, 2011*) 3D TV sales figures, 3D film releases and heightened interest from brands in 3D communication suggest that consumers have typically embraced 3D technology. Independent analysts PWC see this embracement as being a futuristic theme as well, stating; 'people won't buy a 3D TV, but a future proof TV' (*3D TV Watcher, 2011*). If true, this could mean that adoption of 3D techniques will also help to future proof Market Research.

3D Awe

A core respondent related concern is that participants in research using 3D techniques will be so submersed in the technology that the actual research task will become secondary to the experience (*Isgro et al, 2004*). Since this claim was made, 3D technology has become more mainstream and according to manufacturers will continue to grow – meaning consumers are less likely to be 'wowed' by such technology in research environments. Furthermore, once 3D is fully mainstream, conducting research exercises in any other virtual medium could have adverse effects. For example – imagine showing respondents a black and white advert in 2011. Comparably, one only has to look at the rise to prevalence of internet research – now one of the most popular ways to conduct research – which faced similar barriers in its infancy.

3D Globalisation

Whilst 3D holograms can facilitate global research, it could be argued that research techniques which use 3D technology will never be truly global as some countries will never have the technology to action them (*Richarme and Colias, 2008*). Again, this can be seen as a hurdle once faced by internet research, one, which in time, has been largely overcome. SSI, a global online research supplier, now has the ability to conduct online research in 72 countries globally (*SSI, 2011*). These

same 72 countries could also be reachable for any 3D research techniques employed online. Yes, not all countries in the world will be awash with 3D communications, but no matter where you are, a product on a shelf has 3 dimensions. Therefore, it can be said that the utilisation of online 3D product evaluations has the potential to be as global as a likert scale in an online survey, which, whilst not global in the sense it can reach every country in the world, has significantly increased the international reach of Market Research.

3D Cost

A core issue with employing any methodology is cost. 3D research techniques may offer positive returns to Market Research, but are they cost effective?

3D conjoint is the one area where cost potential is not yet apparent as the only area it has been used is academic laboratory experiments. Development of 3D conjoints needs to be undertaken in order to ascertain commercial potential. Only once this technique has been commercialised can its cost effectiveness be assessed. But, given the ever increasing affordability of other 3D research services, with time, 3D conjoint will likely follow a similar route.

Despite the costing uncertainty of 3D conjoint, other 3D methods appear to be affordable. Holographic automotive product tests (car clinics) are currently offered by one of the largest global Market Research agencies (TNS) so the technology is potentially cost effective at a large agency level. But it is not just large global agencies who can afford to utilise 3D methods – small 3D niche agencies have already started to appear. In the USA InContext Solutions is a new company, just 2 years old, who offer online 3D retail simulation (*Research Live, 2011*). Also, in the UK 3D Survey Apps is a boutique company offering 3D product simulation. These examples demonstrate that 3D research technology is already affordable to those operating outside of larger agencies. InContext solutions claim that using an online 3D simulator is 1/3 of the price of conducting the research face-to-face (*InContext Solutions, 2011*). 3D product simulation is priced at 1/3 of the cost of online conjoint hosting (per 3D product), a service which Market Researchers utilise frequently (*Toluna, 2011*). Furthermore, as 3D research techniques are in their infancy, these prices are likely to decrease as 3D as a medium normalises – in a similar way to how online surveys became more cost effective as internet usage grew.

Future Market Research Questions

To summarise, Market Research needs to ask itself the following questions going forward:

- Does it wish to keep in tune with consumers, brands and the way they communicate?
- Would it like to quell criticisms regarding realism in research?
- Are there ways to better execute global research?
- Is it desirable to improve traditional methods?

If the answer to some or all of the above is yes, then Market Research practitioners must consider the reality of increasing the usage of 3D technology in research methods.

Regardless of its critics, 3D technology has very much 'arrived' in society. The increased acceptance of this medium by society will soon see it normalised – meaning Market Research cannot afford to ignore it, and will have to embrace it to keep in line with societal momentum. Additionally, using a growth model outlined by online research, 3D research techniques have the ability to become global and cost efficient – giving Market Research a new dimension it can use to deliver insight.

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