

Kantar worldpanel research methods



This essay uses Kantar Worldpanel as an example to critically analyse a data processing flow of consumer panel research and the competitive environment it is currently facing.

With an introduction to consumer panel research processes, advantages and disadvantages of each step involved from sampling, data collection to data usage will be examined. Based on the issue of sample representativeness, an overall analysis of Worldpanel's current competitive environment with various other research methods will be made. Further attention will be paid into how different sources of data are processed to provide consumer insights, data effectiveness and accuracy issues that have occurred over time and how they are competing against each other.

Finally, recommendations will be given to examine particular areas in panel research that need to be developed further and how can they be achieved.

Market research is an important tool to provide organisations with market intelligence to encourage success. The level of social and market research conducted has risen significantly these years within all types of organisations. (Market Research Society, 2007) In 2008, a total of 18.9 billion was spent on marketing, advertising and public opinion research services worldwide, a 3.9% growth from 2007 (Honomichl, 2009). Despite a high inflation rate in the current state of world economy, total research industry still remained in its positive growth till 2008 (See Figure. 1). The desire for more informed decision making and the need for better insights on both market environment and consumer behaviours have placed an effective market research on the agenda of most organisations.

Figure. 1

Source from: Honomichl, J. (2009). Global Top 25: 2009 Honomichl Report.

Historically, the EFS[1] and BHPS[2] are conducted in the UK market to understand how consumers are making decisions. However, these repeated surveys can only provide limited spending data reported in broad categories. Over the past ten years, scanning of grocery prices from the UPC[3] barcode at checkout gradually became common in the nation's supermarkets, which then enabled a new revolutionary scale of computerized price and volume tracking (Leicester & Oldfield, 2009). Currently, there are two main streams of scanner data services within Fast Moving Consumer Goods (FMCG) industry — retailer audit research and panel expenditure research. The first stream measures EPoS[4] performance on census of major grocery retailer stores with Information Resources Inc. (IRI)'s InfoScan and AC Nielsen's ScanTrack as pioneer services in Britain's market. The second stream collects data from a hand-held scanner sent to a sample of participating household or individuals to provide shoppers' purchase or usage behaviour. Currently Kantar Worldpanel and Nielsen's HomeScan operate as leading services in continuous panel market.

Kantar Worldpanel, the world's leading syndicated continuous consumer research company was rebranded earlier this year from TNS Worldpanel, the world's top 3 market information company (See Appendix. 1) and has now become part of the Kantar Group under WPP Group plc. Worldpanel specialises in providing insights into fields such as FMCG, entertainment, communications, petrol, fashion, beauty, baby and food on the go on a local and global scale. Including specialty panels and custom proprietary panels,
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Worldpanel measures consumer purchasing and consumption behavior in the UK based on a sample of 25, 000 households, the largest continuous consumer panel in Europe (Kantar Worldpanel, 2010).

2. 0 Findings

2. 1 Panel Research Information Processing Flow

— Why Worldpanel cannot represent total population?

Ideally, a carefully selected and weighted sample should be representative of the general population. However, achieving this goal from a human population is not easy. Based on McGivern's (2006, p. 285-292) sampling theory, findings provided by a sample are only estimates of the population values. Sample statistics can only give probability statements and cannot make claims about the value of population parameters with absolute certainty. An effective sample design can ensure the sample accurately reflects the population value most of the time, but with a known margin of error. Over the past 50 years, Worldpanel has been perfecting their panel and sampling tools using constant principles of quality research and gradually improved methods. Although good samples are maintained, they cannot be perfect.

Figure. 2**Identifying the Target Population****Determining the Sampling Frame****Selecting a Sampling Procedure****Probability Sampling****Non-Probability Sampling****Determining the Relevant Sample Size****Execute Sampling****Data Collection from Respondents****Generating Information for Decision Making****Handling the Non-response Problem**

According to Aaker, Kumar and Day (2004, p. 374-392), there are seven major steps involved in a typical sample research process as stated in Figure. 2.

2. 1. 1 Identifying the Target Population

Worldpanel universe is defined as the GB private household population, 25, 225, 000 households in 2009 (UK National Statistics, 2009). The potential households' demographic profile should match the demographic profile of the GB population. A large scale screening procedure will take place before the sampling process to select the potential population of interest on the basis of their demography and geography. Benefits of a household panel is to take account of buyers who may not be the users but who have a clear attitude towards the competitive positioning of the products and having taken a decision of purchase, such as shoppers of baby and pet products.

2. 1. 2 Determining the Sampling Frame

Worldpanel households are chosen from those who have previously assisted with omnibus and ad-hoc street surveys for the company. This may generate subset problems when certain elements in the population will not be presented as the sampling frame used is smaller than target population. For example, if the company has not had a record of certain demographic groups helped with surveys before, sampling frame may already be biased before sample is selected. In this case, information from other sources is suggested to be obtained and match up with whole population. (Aaker, Kumar and Day, 2004, p. 376-379) Worldpanel may occasionally buy contact lists from magazines and mail-order companies, but the problem is that each such list has its own type of biases as well.

2. 1. 3 Selecting a Sampling Procedure

Panellists are chosen specifically to match the demographic mix of the GB population. Worldpanel use a non-probability quota sample to select potential panel households based on age, social class, size of household, lifestyle and also place of resident based on TV region. Country is split into 500 homogeneous sampling units based on postcode population density. Predominantly, households are sent postal invitations and those that return the invitation and indicate a willingness to join the panel are further contacted by phone. However, considering the sample bias generated from single recruiting method, Worldpanel has been developing its recruitment process over time which is now available via on-line, telephone, web and magazine advertising and also the recent established school partnerships (Kantar Worldpanel, 2009b).

It is presented by McGivern (2006, p. 301-302) that the quality of a quota sample depends mainly on the degree of randomness when the sample is selected and how accurate and up to date the information quota controls based on. All Worldpanel demographic data is weighted using the population profiles from the BARB[5]Survey and Census information from ONS[6]which are updated annually. However, an absolute randomness cannot be met in quota sample because of the acceptances of substitute when original random choice is not reachable. For example, Worldpanel would not follow strict rules to recruit random selected households but those who voluntary returned their invitations which may bias the panel with households who have less time-consuming jobs or simply people who are friendlier. Certain sample biases are also involved when targeting hard-to-fill demographic segments such as households who travel frequently or elder households who are hard to train on technologies. To eliminate the gap, Worldpanel deliberately oversamples larger households containing multiple shoppers to get more raw data (See Appendix. 2) and corrects by weightings (which will be discussed later). This may, to a certain extent, influence the sample representativeness while overlooking the problems associated with adhering to the quotas. Furthermore, because of the non-random method of selection, it becomes not permissible to calculate a standard error of such quota sample.

According to McDaniel and Gates (2007, p. 374), ' The key to making accurate predictions about the characteristics or behavior of a large population on the basis of a relatively small sample lies in the way in which individuals are selected for the sample.' Because of these serious criticisms

of quota sampling, it is not usually considered as favor by academic researcher (Bryman & Bell, 2007, p. 201-202). However, because of the fastness, cheapness of cost and the same effects of biases other sampling methods may have, quota sampling technique is not always discarded as inferior in practice (Aaker, Kumar and Day, 2004, p. 389).

2. 1. 4 Determining the Relevant Sample Size

In conclusive research, the sample size should be relatively large in comparison to exploratory research. For nature of the population parameter data Worldpanel is trying to provide, sample size needs to be big enough to give precise estimates in detailed sub-group drill down. For instance, research may be carried out to look at pre-family households purchasing small brands at small retailers in certain reporting period. Sample size in this case should be big enough to pick up enough raw purchases for a robust reflection. However, this has become a common sample error in Worldpanel data. Because of the low purchase counts collected, weightings applied could easily bias the results and give non-robust figures which may differ significantly from actual.

In theory, for a give confidence level, the larger sample size is, the smaller sample errors should be (See Appendix. 3). Since 1990 when Superpanel launched (rebranded as Worldpanel in 1992), it has increased panel size from 8, 500 to today's 25, 000. Will it keep increasing its panel size to give greater accuracy? Pete East (2010), Kantar Worldpanel Strategic Director, says ' We are always considering increasing our panel size, but the trade-off here is between whether the cost of increasing our panel size will give us

enough value of client satisfaction.’ In the real business world, profit maximization is still a business’s major concern.

2. 1. 5 Execute Sampling

Worldpanel aims to improve recruitment rates, reduce compliance effects and maintain high levels of panel continuity. However, increasing difficulties are found to retain households who are prepared to commit to on-going research activities, particularly in certain demographic groups. When a panellist leaves the panel, they should be replaced with someone who is demographically equal so the same quota remains. Despite 85% annual continuity, Worldpanel still need to recruit 4, 000 new households per annual. (Kantar Worldpanel, 2010) According to Worldpanel’s internal statistics, only 2 in 100 households who are invited have successfully sign-up and commence scanning task. To effectively execute sampling plan and ensure panel quality, has become one of Worldpanel’s main challenges today.

On the other hand, for samples that have already been selected, Worldpanel employs a rim weighting technique to balance the sample for each demographic and ensures weighted sample consistency from period to period. Rim weighting, also known as raking, is first proposed by W. E. Deming during the 1940’s (Wong, 1992). In theory, rim weighting is a series of iterations of single-variable cell weighting which match on one variable at a time to universe estimates. It applies weight factors to analysis based on target values of single response variables and produces analysis in which the proportions of sample respondents are adjusted to match more closely to the proportion in target population (Snap Surveys, 2010).

The demographics rims that are controlled within Worldpanel weighting process are: housewife age, social grade, region, lifecycle, age of youngest child, dog/cat ownership, PC ownership and ACORN[7]code. Each eligible household has one demographic weight per 4 week ending period which is applied to all their purchasing for that period. The primary advantage of rim-weighting technique is that it does not require joint distribution of the variables to be known. However, there are three commonly agreed serious criticisms. First, rim weighting rarely converge values that are skewed enormously. For example, a sample with 90 male and 10 female can hardly be weighted to 50: 50. Second, inter-correlated variables such as education and income can easily lead to undesirable results. Third, when a large number of variables are used to weight the sample, rim weighting is generally found to produce unstable and unreliable estimates. (Dynamic Logic, 2008) For Worldpanel, eight demographic rims are used as weighting variables, among which certain correlation may exists such as housewife age with age of youngest child, weightings here cannot be regarded as a quick fix for all data errors.

2. 1. 6 Data Collection from Respondents

After successfully recruiting, Worldpanel households will be asked to scan the barcodes of all purchases that are brought in to the home. Details of non-barcode purchases are collected via a combination of printed show cards and on-screen questions displayed on the scanner (See Appendix. 4). The data collected are primarily kept in a modem and polled twice weekly using a standard telephone connection or internet transmit through panel member's home PC. Some households are also asked to post their till receipts back to

give a complete record of accurate pricing, promotional information, store identification and information that may be missing from the barcode (Kantar Worldpanel, 2009b).

In principle, purchases from various stores should all be covered, but in fact various non-sampling errors still exist which are virtually impossible to eliminate entirely. Unlike sampling error, increasing the sample size will not have any effect on reducing non-sampling error (Scheuren, 2005). Problems as low top-up shopping pick up and sample compliance errors which may cause a gap in theoretical and actual data pick up are known as non-response error. For example, when panel members bought a pint of milk in a corner-convenience store to replace their empty one, they may forget to scan it. Some households may also exhibit a fatigue in data recording and may give up over time because of the time and effort needed. After taking account of data polling failures and exclusion of poor complying households, the 25, 000 Worldpanel household will then be reduced to a 22, 000 eligible sample for reporting use (Kantar Worldpanel, 2010).

Besides, non-sampling error also involves response errors such as promotion over read, administering errors like recording error (See Figure. 3) and most importantly design errors (Aaker, Kumar & Day, 2004, p. 84). Worldpanel is designed to pick up all purchases that are brought into households' home, but it has initially excluded out of home consumption, catering, non-private households, self-catering holidays, exports and wastage. Out of home consumption plays an importance role in measuring GB purchasing pattern. Special products like sandwiches, confectionary, drinks and snacks can hardly get picked up by Worldpanel data. To bridge this gap, Worldpanel

recently launched its new Food on the Go texting panel, consists of 5, 000 individuals from within Worldpanel homes. Act as a compliment to the main scanning panel, FOTG panel members will text all out-of-home purchasing details instead of scanning. Over time, Worldpanel has also introduced a variety of other methodologies to ensure the quality of the panel data such as compliance ranking system, extreme data checks and improved panel communication.

Figure. 3

Postal Strike

Source from: Kantar Worldpanel (2009b). Training Course A3 Worldpanel UK Methodology. London: Kantar Worldpanel

Note: Rate of Till Receipt received is affected severely by Postal Strike

2. 1. 7 Generating Information for Decision Making

Worldpanel release data on a four-weekly basis which makes a calendar year equally distributed in 13 comparable periods. To generate effective databases, raw data collected needs to be edited and coded. Editing removes omissions and errors while eliminating inconsistencies. Coding assembles data into common factors, which can be analysed and entered into computers for further usage (Birn, 2004, p. 97). Worldpanel assign each product into a number of attributes that describe it such as brand and private label, manufacturer, flavour, pack type, pack size and so on. Different attributes enables data to be looked at in a number of different ways.

However, a client's universe and attribute definition will not always be consistent with or not have been detailed by Worldpanel. In most occasions, <https://assignbuster.com/kantar-worldpanel-research-methods/>

a CMA (client maintained attribute) is carried out for the client to code all products interested into their own definition. For example, Worldpanel define chocolate type as bars, seasonal, shapes and tablets but Kraft also want to look at chocolate liqueur and twist wrap sector. Kraft will then start to maintain and code their own attributes and return the information every four week before Worldpanel data being processed (Kantar Worldpanel, 2009a). The benefit of CMA for a client is the elimination of analysing data from various universes but at a ‘ cost’ of a massive amount of time effort and additional cost of budget needing to be put in. Issues usually arise on clients’ willingness to compliance and a non-controllable quality from the information clients supplied.

2. 2 Industrial competitors and the competitive environment

— How does Worldpanel compete within current research market?

During the latter twentieth century, competition becomes fiercer as firms trying to create their own competitive advantage in the increasingly crowded market (Hooley and Saunders, 2004). For a business to earn effective return on investment, it has to understand the dynamics of its industries and markets in order to compete effectively. Porter (1980) suggests that there are five main forces which shape competition and contending that the competitive environment is created by the interaction of these five different forces. As stated in Figure. 4, there are three forces from horizontal competition: rivalry among existing firms, threat of substitute products/services and threat of new entrants; also two forces from vertical competition: the power of suppliers and the power of buyers. Porter

suggested that the intensity of competition is determined by the relative strengths of these five forces.

Figure. 4

Source from: Michael E. Porter (2008) The Five Competitive Forces That Shape Strategy. New York: Harvard Business Review.

2. 2. 1 Rivalry among the existing companies

Argued by Hooley and Saunders (2004), a prime source of competition for most industries is from the existing competitors. Within the current FMCG panel research market, only Nielson's continuous panel with 15, 000 households is considered the major direct competition within UK market. The expertise of Nielson's global service as a whole and the consideration of an increase UK panel size have long been threatening Worldpanel. Foreign panels like Gfk's German panel and Ipsos French panel are usually in a position of collaborating but compete indirectly when sharing a set client budget. Additionally, a variety of individual and custom panels also compete indirectly in terms of consumer insights provided.

Reported by McDaniel and Gates (2007 p. 26), market research industry has become highly concentrated during the last two decades with over half of the market dominated by the world's largest 50 conglomerates. Based on measure of concentration ratio, one of the indicators of industry concentration, the current panel research industry is defined as highly concentrated as the majority of market share is been held by large firms such as Kantar and Nielson. Rivalry among firms in a panel research industry is regarded as low, with Worldpanel currently standing in leading place.

2. 2. 2 The threat of new entries

In addition to considering existing rivals, the possibility that new firms may enter the industry also affect competition. New entrant could change major determinants of market environment such as market share, price and customer loyalty. Threat of new entrants is usually based on the market entry barriers. In terms of panel research industry, entry barriers exist as it is difficult for outsiders to replicate a panel research agency's position.

Economies of scale allow cost advantages for research conglomerates to adequately serve all forms of clients needs. Considerable level of investment as well as technology input also builds up the barriers for a new entry to be made.

However in this constant developing technical environment, a break-in of new technology can hardly be predicted. As Pete East mentioned that the fast developing trend of smarter credit card data may have large opportunity to be used as a new method to record purchasing data and support consumer research. Considering privacy issue involves when a census can hardly be reached, the chance for a panel to be build on would still present.

2. 2. 3 The threat of substitutes

The existence of products outside of the realm of the common product boundaries increases the propensity of customers to switch to alternatives. Within the customer research industry, substitute service of panel research can be concluded into three parts, EPoS continuous scanning data supplied, the new emerging loyalty card data and various survey and questionnaire research data such as omnibus surveys[8], focus groups, interview and U&A[9]research offered by multiple information suppliers such as Research

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International, TGI as well as other business units from the Kantar Group. Competition within panel research substitutions are considered as highly intense.

EPoS data

The EPoS methodology captures census retail sales information weekly from major retailers. The causal measures are collected by recording product barcodes using laser scanners at check-out point. Data is transmitted back to the head office via modem where it is linked to store data. For remaining chains and independent outlets, a sample-based methodology will be implemented on a 4-weekly basis to track sales movement, price merchandising conditions in the store, including observation of displays and newspaper advertisements and also in-store promotions. When electronic data is not available, a field audit methodology will then be utilized with a physical field force collecting causal data every week at a regular sample of stores to derive estimates of sales on the same days each week. All the information collected are then edited and coded into database and merchandise to FMCG companies at a certain cost. Certain data will also be offered back to retailers as a return for co-operation (The Nielsen Company, 2010). Nowadays, manufacturers and retailers use the data result from all methods to understand their market position and support tactical decisions makings. For a permissible budget allowance, major clients choose to use both EPoS and panel data to gain up-to-date market trend and understand consumer dynamics. However, for most small and medium size companies, a limited budget allows that either service could be chosen.

Clients go for panel data as the value of effective investment where panel data will give all retailers' performance in one view plus all consumer purchasing patterns as penetration, trip spend/volume and average purchase. Whereas for EPoS data, tracking of sales by the individual retailer (also known as named account data) has to be purchased separately because of the cost of source information involved. As mentioned by Pete East, for the same value of service provided, EPoS data will cost the client twice as much as panel data. On the other hand, EPoS data availability depends heavily on confidentiality among different retailers and the retailers' collaborating willingness. For example, Nielsen and IRI are not allowed to sell Tesco's data to Sainsbury. Under same condition, a client will not be expected to bring Sainsbury figures to Tesco either which usually emerges certain inconvenience. Retailers like hard discounters (i. e. Aldi, Lidl and Netto) and Morrison's historically do not cooperate with any research agencies which may cause certain variation in consumer behaviours that can not be captured, which means a so-called census data can not cover the whole census either (IRI, 2010).

However, an effective investment on research also embodies on data accuracy and responsiveness. In perfect world, sample data would be fully representative of the census that it is selected from. But in reality some of the peripheral retail sources and small brands might have weaker pick-up. The error is even more intensified when looking at new product development which counts as vital part in business strategic planning. In addition, compare to the longer operating period panel data requires, collect EPoS data involves much less efforts and data can be delivered on even weekly

basis if required. Likewise when compare measures as rate of sale and distribution which cannot be gathered from panel data, EPoS data can provide much more unique insights when measuring sales performance (Sachin, 1996).

Loyalty Card methodology data

Today, many consumers are members of supermarket “clubs.” In return for signing up for a card and presenting this when making purchases, consumers are often eligible for considerable discounts on selected products. Dunnhumby is one of the agencies using this emerging way of looking at information collected from loyalty card (Tesco Club Card). Tesco has around 10 million Club Card holders which counts for approximately 80% of Total Tesco expenditure in the UK. Currently, Dunnhumby is processing 1 million cards as a sample to be representative of category structures. The information collected is the purchasing for each household within Tesco store when a Club Card was used with the transaction. A certain amount of demographic information is also available on the proportion of card holders.

Loyalty card data acts as an efficient combination of EPoS and panel data and have opened up the possibility of developing a new generation of quantitative consumer data analysis. “If manufacturers want to launch a product, we can tell them exactly who’s likely to buy that product, and then, once launched, whether customers are buying it more than once. At the same time, we can predict the lifestyle make-up of any Tesco store and allow local management to plan on appropriate range of products.” says Edwina Dunn, chief executive of Dunnhumby (McElhatton, 2003). Putting all benefits from panel and EPoS data together, the key limitation for Dunnhumby loyalty

data falls onto its Tesco-specific factors, albeit the biggest single retail chain in the UK. Although based on a 20 times larger sample size which Worldpanel can hardly, Dunhumby's loyalty card data is not considered as reflective of total GB population. However, future cannot be predicted. When all loyalty card information get collected and collaborated together followed the EPoS trend, panel research method will be facing a serious situation of being replaced.

2. 2. 4 Bargaining power of suppliers

The bargaining power of suppliers is also described as the market of inputs. Suppliers of components, labour, and services to the firm can be a source of power over the firm when there are few substitutes. The major supplier for panel research is the panel as a whole where all research services are based on. Panellists' continuity and compliance have significant influence on panel data quality. Although certain controls are implemented to drop poor performing panellists off the panel, as mentioned previously, the cost and efforts of recruiting a new panellist are considerably high. The scarce eligible suppliers tend to have a stronger power in panel research industry.

2. 2. 5 Bargaining power of buyers

The bargaining power of customers is also described as the market of outputs. A strong bargaining power can put firms under serious pressure. However, Worldpanel's nature of syndicated service has in large extent limited the bargaining power of buyers. Syndicated research agencies sell common designed of information to serve a number of customers' needs. Though data information is shared among clients, services can be rarely customised. For example, when client request a change in Worldpanel's

coding definition, permission of all clients affected needs to be obtained and usually a long processing period has to be expected. Although a switching cost of research service is regarded as minor to buyers, the market has not yet allowed many choices.

3.0 Recommendations

— What should Worldpanel do in the future?

The industry is desperately looking for ways to accurately monitor behaviours in order to achieve the most effective outcomes. Though no easy method can be at hand to solve the problem of data representativeness, the common recognition of focusing on data quality could be the first step on the right way. To maximise client satisfaction, a better panel maintenance and new methodologies in data collection becomes the main goal. More focusing on insight consumer pattern than sales performance is necessary for Worldpanel to compete with leveraging competitive advantage. Only Worldpanel data allows unrestricted view in understanding consumer behaviour with tracking of gain and loss from a total market perspective. To compete with the new emerging threat of loyalty card data and integrated panel EPoS analysis service from Nielsen, a better collaborating based on the current relation between IRI and Worldpanel is considered as essential. Rapid advances in new technology are also recognised as significance of new direction for dev