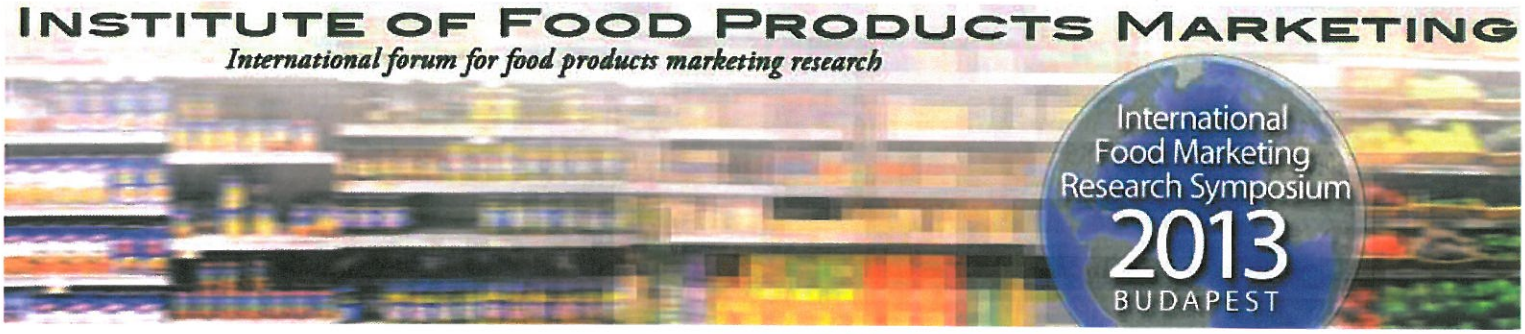

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Contribution From Purchase Frequency To Understanding Organic Food Consumers

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Abstract

In order to identify some of the barriers preventing the expansion of the organic market, this paper reviews the current literature on consumers' buying behaviour in relation to organic food. This reveals a significant disparity between consumers' positive attitudes towards organic food and their low levels of actual purchasing, yet fails to provide conclusive evidence regarding the reasons for this attitude-behaviour gap. The aim of this paper is to investigate whether an analysis of frequency of organic food purchases will provide insights into the reasons for this.

Results indicate that buyers vary in their frequency of organic food purchases, from a relatively small proportion of consumers who purchase it regularly – at least once per week (around one in ten) to many who have never purchased it (around one in four). Most organic food buyers are partnered (70%), many are from lower income households (30%), and a large number (20%) have been purchasing for less than one year. And finally those who purchase organic products more frequently place higher importance on the attributes that differentiate organic products from alternatives, namely environment, health and product quality.

From the perspective of expanding sales in the organic market the key challenge appears to be finding ways to convince existing consumers to purchase more organic products. Persuasive and targeted marketing communications will assist in achieving this, however structural issues in the organic industry, such as its massive diversity; in range in products, geographic spread and size of operations, make it hard to present consistent marketing communication messages.

KEYWORDS: food, organic consumer, purchase frequency, attitude-behaviour gap, Australia

Introduction

Sustainability of the global food system has been identified as one of the greatest challenges humanity will face in the future. Research has identified that one of the greatest threats to sustainability is conventional industrial agricultural systems are the high energy and material cost they require to function (Zepeda & Nie, 2012). As a result, there is a growing body of research emerging across various disciplines dedicated to finding the most effective ways to reform it. One of the most promising alternatives proposed is the production of food using organic methods. An increasing number of consumers are expressing their concerns about personal health and the environmental impact of the food system by seeking out organically produced food. Over the last 50 years it has developed into the most visible brand for a healthier and more environmentally sustainable food system. The organic food movement has increased in size and popularity over recent decades, however it still retains a marginal market share at around 1% relative to conventionally produced products (Willer and Kilcher 2011).

Organic food refers to food that is grown without artificial chemicals, including growth hormones and genetically modified organisms, as well as avoiding the use of intensive production methods in relation to animal husbandry. The following definition of organic agriculture was developed by the International Federation of Agriculture Movements (IFOAM, 2012):

> *Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and biological cycles adapted to local conditions, rather than the use of inputs sourced from external ecosystems. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.*

This definition is manifest in four Principles: Health, Equality, Fairness, and Care. These are now represented in certification systems and regulations for organic products throughout the world. As such, they provide an example of a food system, and associated products for consumers that give explicit emphasis to human health and environmental sustainability. What makes this definition particularly useful is that it takes into account the whole supply chain - from farmer to consumer. Thus, the focus is not solely on production factors, but also on the social impacts of the process of producing, selling and consuming food. It is inclusive of all

products, people and places. This enables the principles of organic agriculture to be adapted to suit a wide variety of different situations.

As this definition indicates, it is important to emphasise that organic principles extend beyond farming practices to encompass the whole supply chain. In this way, the organic movement advocates a paradigm shift for the entire food system in which all activity associated with food production, distribution, retailing and consumption is underpinned by a concern for human and environmental health (Pearson 2012).

The concepts and philosophies underpinning organic production have evolved since the 1940's as an alternative to the increasing industrialization of food production. Today a wide range of organic products are grown and made available to consumers throughout the world through distribution channels ranging from subsistence farming though to supermarkets with multinational supply chains.

Global sales growth for organic products is anticipated to continue as consumers increasingly reconnect with the source of their food and, as part of this, place value on organic certification. Although global sales of organic products are estimated to be $US60 billion, they remain, as previously mentioned, a niche that represents only approximately 1% of the market (Willer and Kilcher 2011).

In many developed countries consumer's 'basket' of food purchases includes a few organic products. For example, in Australia it has been reported that two out of every three (65%) consumers purchase organic products, however, in a similar fashion to the global situation, the market share of organic products is around 1% (BFA 2012). This report also provides an analysis of the amount of the household food spend with most (58%) rarely purchasing organic food (spending less than 10% of the budget on organic food), some (28%) being occasional (spending 20 to 50%) and only a few (14%) being regular purchasers (spending more than 50%).

Hence the amount of organic food in an organic food buyer's diet varies significantly. Recent research has highlighted the limitations of conclusions from research that bundles a 'once in a year' consumer of organic food with someone for whom it is the majority of their diet. This concluded that having 65% or more being organic is a realistic threshold for classification as having an organic food diet (Oates, Cohen and Braun 2012).

This paper provides a review of current literature on the buying behaviour of organic food consumers. The knowledge gap as identified in Sultan and Pearson's (2011) study is the point of departure for the current paper. In particular, this paper attempts to explain the disparity between consumers' positive attitudes towards organic food and their relatively low levels of purchases through empirical evidence. This research focuses specifically on how purchase frequency information can provide insights into organic food buyer behaviour and specifically the attitude-behaviour gap that currently exists.

The contribution from research investigating the marketing of organic food

Over the last 20 years, a significant body of research focusing on the marketing of organic food has emerged (Pearson, Henryks and Jones, 2011). From a marketing perspective, organic food may be conceptualised as a 'new' product. A number of models, most of which are based on the work of cognitive psychologists and behavioural theorists, are available to assist in understanding consumer behaviour in relation to new products. Within marketing, the most commonly used models are the 'AIDA' (Strong 1925) and the 'diffusion of innovation' (Rogers 1962). The AIDA (attention–interest–desire–action) model assumes that purchase behaviour (ie. action) will occur once the consumer is exposed to a marketing communication message and develops an interest in the content of the message which grows into a desire to get the product and/or service. In contrast, the diffusion of innovation model discusses consumers' product adoption processes and includes five different stages: awareness, interest, evaluation, trial and adoption. The implication for marketing communications that emerge from both of these models is that each distinct phase should be addressed with a targeted and sequential communication message.

The level of awareness amongst all consumers about organic food would appear to be high in many countries. For example, in Australia it has been reported that in excess of 90% of food buyers know that organic food is produced without the use of artificial chemicals (Pearson 2001), and the level of consumer awareness is likely to have increased since this research was completed. However, awareness (or attention in the AIDA model previously discussed) alone does not result in purchase, interest and desire must be added before purchase (or action) occurs.

It is possible that the low purchase rates of organic food can be attributed to the relative inadequacy of information availability and its quality. It has been reported that, for some consumers, a lack of information about organic food acts as a barrier to them purchasing more of

it (Harper and Makatouni 2002; Yin et al. 2010). As a result, a number of studies emphasise the importance of additional marketing communications that aim to popularise organic foods amongst various consumer groups (Hughner et al. 2007; Latacz–Lohmann and Foster 1997; Pearson and Henryks 2008; Pearson et al. 2007; Sultan and Pearson 2011). Sultan and Pearson's (2011, p. 5) study, in particular, states that 'the focus of marketing communication should be on creating interest and desire amongst consumers. There are two important aspects of this. First, it is essential that the marketing communication appeals to the values held by consumers in the target audience. Second, this communication should aim to develop a positive perception about organic food, and associated with this, trust in the communication sources.

In order to develop the most effective ways to target marketing communications, a number of theoretical approaches have been used. These different approaches may broadly be classified into demographics, marketing mix variables, product attributes, and values and attitudes.

Consumer demographics is one of the most commonly used analytical tools for investigating organic food purchases (Davies, Titterington and Cochrane, 1995; Fotopoulos and Krystallis, 2002; Padel and Foster, 2005; Thompson, 1998; Wier and Calverley, 2002). These studies provide some evidence that generally wealthy families and 'empty nesters' (being a couple whose children are independent and have left home) tend to buy organic food. It is suggested that this may be because they have more disposable income (Padel and Foster, 2005). In addition, demographic studies have revealed that women tend to be core buyers of organic food (Davies et al., 1995) although health conscious men are also found to be increasingly interested in organic foods.

Another area of research has investigated organic food purchases from the marketing mix perspective. This approach considers the product, its price, promotion (ie using a variety of different marketing communication techniques) and physical distribution. Some of these studies (Pearson and Henryks, 2008; Pearson, Henryks and Moffitt, 2007) have found that the relatively high product prices are important as both a deterrent and an incentive. To some consumers the high price of organic food is indicative of quality, while others are discouraged by the higher cost.

Other issues revealed by marketing mix studies relate to the lack of clarity around the value of organic products and consumer confusion. This relates to which foods are organic and which are not, as well as the multiple certification organisations each of which has their own logo or brand

(Henryks and Pearson, 2010). Sultan and Pearson (2011) contend that 'due to the fragmented nature of production and distribution, most of the marketing communications for organic foods are conducted in a limited scale, and most of this is concentrated in product packaging and labelling' (p. 3). The value of organic foods could be emphasised through the effective use of product labels in retail outlets. Marketing could also be utilised to make emotional appeals in relation to specific product attributes. Such strategies are supported by empirical research, as a number of studies have found that consumers' 'like' of organic food, compared with conventional, increases in the presence of marketing communications providing information on the label about the nutritional information and origin of production (Caporale and Monteleone, 2004; Johansson et al., 1999; Kihlberg et al., 2005; Schutz and Lorenz, 1976). It should be noted that this is not universal amongst all consumers and all products (Poelman et al., 2008).

The final contribution from the marketing mix approach is that structural issues impact on the consumption of organic food. This shows that in addition to consumer demand, and increased production, consumption of organic food is influenced by political factors such as regulations and government initiated market development activities (Thøgersen, 2010). In addition, there is still limited distribution of organic products in some areas. However, this is becoming less of an issue as organic products become available in the major supermarket chains. The limited range of organic products does, nonetheless, remain an issue.

Product attributes are another theoretical approach that has been used in a number of studies. The results from this area of research have identified that the three most common reasons for purchasing organic foods are, in declining order of importance, seeking healthy food products, concern for the natural environment, and desire for superior food quality (Hughner et al., 2007; Pearson and Henryks, 2008; Shepherd, Magnusson and Sjödén, 2005; Sultan and Pearson, 2011). The identification of these three attributes as being the most important is remarkably consistent across time, cultures, and products, however, there are differences in their ranking.

It is important to note that the scientific evidence to support some of these consumer perceptions, such as the superior health claim, is inconclusive (Smith-Spangler et al 2012). However, it is still useful for marketing purposes to further categorise consumers who are motivated by perceived health benefits. As such, these consumers have been subdivided into those who are proactive about their health and those who are reactive to a negative situation (Pearson et al 2011). Proactive consumers believe that organic food will have a positive impact upon their wellbeing because it is healthier than conventionally produced food. Conversely, some consumers purchase

organic food as a reaction to an adverse health situation. For example, someone who is ill and believes organic food may assist in their recovery.

The desire for high quality, including taste for some products, as a driver of organic food purchases was found to be less consistent across different cultural contexts than health drivers. For example, Chen (2009) found in the context of Taiwan, consumers experience of the taste of some organic foods was below the expectations created by conventional products and consequently they considered organic foods as a fraud and inferior. In contrast, other research has found that organic foods were perceived to have superior taste for Dutch consumers (Schifferstein and Oude Ophuis, 1998). The reasons for cross–cultural taste discrepancies are explored in several studies (Bourn and Prescott, 2002; Poelman et al., 2008). The primary explanation given for these cultural discrepancies is that different varieties of organic foods and their different growing conditions influence the types of organic food available in specific locations. In addition, product freshness and the recipes used could also contribute to different perceptions of taste (Sultan and Pearson, 2011, p. 3).

Consumer values and attitudes have also been a theoretical focal point of studies investigating the marketing of organic food. These studies are based on the assumption that the motives for consumer intentions emerge from a small number of relatively stable values, which in turn form attitudes (Sultan and Pearson, 2011). The linkage between values, attitudes and intentions is constructed through the Theory of Planned Behaviour (TPB), and it derivatives, along the chain of values–attitudes–behaviour. The current literature in this area is inconclusive, with some research finding a positive relationship between values and attitudes that support organic food and purchase intentions (Aertsens et al., 2009; Chen, 2007; Lodorfos and Dennis, 2008; Michaelidou and Hassan, 2008) whilst others did not find this (Chen, 2009; Shepherd et al., 2005; Vermeir and Verbeke, 2008).

A personal value, being a stable construct, is unlikely to shift as a result of any marketing communication messages and may be seen to be one of the antecedents to the impact of any marketing communication (Aertsens et al. 2009). The specific personal values, also referred to as attitudes in some of the literature, that have been identified as being important to organic food buyers are those relating to the individual (eg. longer life, personal health, satisfaction), family (eg. family health and well–being) and society (eg. environment, rights of the animal and their welfare) (Makatouni 2002). More specifically, values that motivate consumers to purchase organic food relate to individual health, rather than family health, and environmental

consciousness (Padel and Foster 2005). Thus, marketing communication that focuses on these values could potentially increase purchases of organic food (Sultan and Pearson, 2011).

In summary, the literature fails to explain the discrepancy between consumers' generally positive attitude towards organic food and their relatively low levels of purchase. Consumers may prefer organic foods for several reasons, such as health and environmental concerns. These reasons may be aligned with personal values, however, consumers' actual purchases of organic food could still be impeded by several factors, including limited information about products, premium prices, less convenient availability, and confusion around and lack of trust in organic labels (Sultan and Pearson, 2011). The current paper endeavours to provide information that may help to explain this attitude-behaviour gap by using the frequency that consumers purchase organic products as a variable to explore differences amongst organic food consumers.

Methodology

This paper reports the findings from one section of a larger Australian study investigating the role of marketing communications in consumer satisfaction with organic foods. A structured questionnaire was developed and revised by the authors of this paper. This included a pre-test with 12 respondents to assess its suitability, readability, and time taken for completion. The questionnaire was standardized and undisguised for all the respondents.

A pilot study was conducted by a research agency with a sample of 37 subjects. Following discussions between the authors of this paper and representatives of the research agency who were engaged to collect the data minor adjustments were made. These included decreasing its length to reduce response fatigue (Burchell and Marsh, 1992) as well changing the wording in several questions for greater clarity.

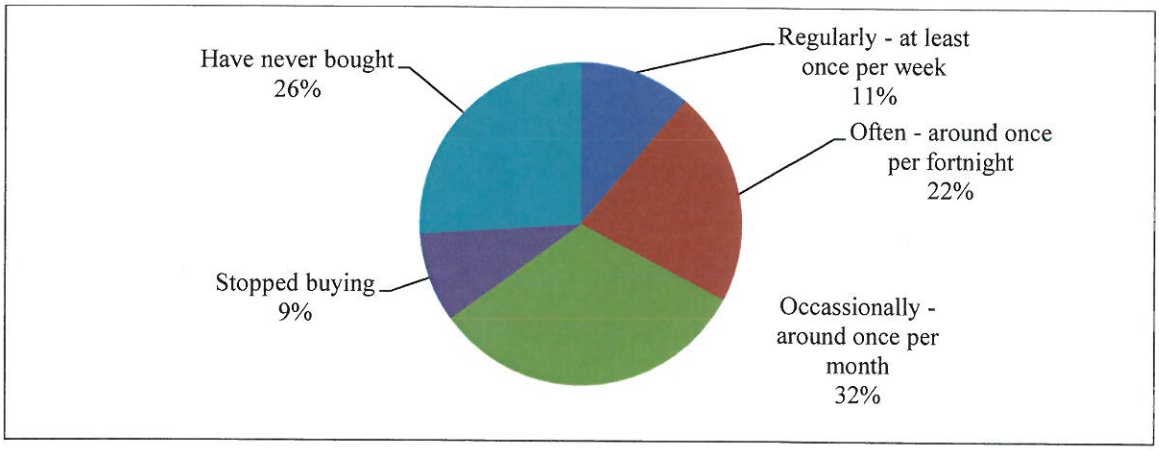
The online survey method was considered most appropriate due to its advantages including access to unique populations and ability to accommodate large sample sizes at relatively low costs in a short amount of time (Wright, 2005). Data was collected during November 2012. A total of 1011 respondents were randomly recruited from a national research only panel of consumers. The only qualifying prerequisite for respondents was that they had to have purchased organic products sometime in the past.

Results and discussion

The primary aim of this study is to investigate the extent to which organic food buyers vary according to their purchase frequency and to explore whether this provides insights into the gap between consumers' positive attitudes towards organic food and their low levels of actual purchasing. The specific areas investigated are demographics, length of time they have been purchasing organic products, and rating of organic food attributes that are important to them.

Purchase frequency

The results as shown in Figure 1 indicate that the frequency of organic food purchases varies, from a relatively small proportion of consumers who purchase it regularly (around one in ten) to many who have never purchased it (around one in four). In between these extremes there are those who purchase organic food often (around one in five), occasionally (almost one in every three), and those who have stopped purchasing it (around one in ten). In total just over half of the population purchase some organic food (two in every three).



(Source: BFA 2012 and results from Questionnaire N=1011)

Figure 1: Frequency of organic food purchases in Australian population

The following results and discussion compare the different purchase frequency groups with the main demographic variables.

Demographics

There is no difference between genders in terms of their behaviour around how often they purchase organic products. However younger people tend to be the more dedicated organic food buyers, as they are more likely to purchase it on a regular basis (such as one in every four of

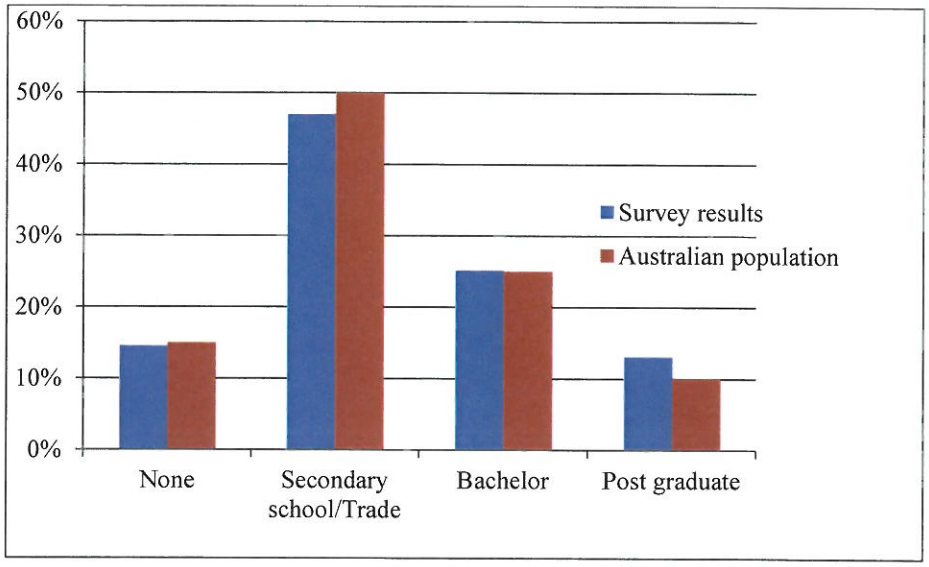
those in the 20-29 year old age bracket of those who purchase organic products, that is excluding those in the have never bought category, is a 'regular' whilst this reduces to only one in every ten for 60-69 year olds). These results are in contrast to those previously discussed where organic food buyers tend to be dominated by the older age categories such as empty nesters (Davies, Titterington and Cochrane, 1995; Fotopoulos and Krystallis, 2002; Padel and Foster, 2005; Thompson, 1998; Wier and Calverley, 2002).

Relatively low income households (the lowest category in this research was below $US45,000 which is equivalent to the average household earnings in Australia (ABS, 2011), and $A=$US) make up 30% of organic food buyers. This challenges the often implicit assumption that it is purchased by higher income households who are more readily able to absorb the generally higher price of organic products (Padel and Foster, 2005).

Further most organic food buyers are in full time employment (36%) (although they must be on relatively low salaries as observed in the preceding paragraph) or retired (23%). These low income households are the ones most likely to have stopped buying in last year (almost one in every two) hence there must be lots of churn amongst low income households, with many new entrants replacing those who leave. Additional research would be required to determine if it is the cumulative impact of price premiums that becomes overwhelming causing these consumers to move into the 'stopped buying category'.

Many organic food buyers (almost one in five) are new entrants having being purchasing for less than one year. Most of them are trialling organic products (as the purchase frequency for over two out of every three of them is rarely). It is likely that a large portion of them (almost one in five) stop buying within a year, and then there is gradual attrition over following years. A small portion contribute to a net increase in the total number buyers as both the population and market share of organic products increases gradually. A solid core of organic food buyers (almost half) have been purchasing for a long time (more than three years).

The finding that many organic food buyers have a low socio-economic status is further supported by results correlating organic food purchases and consumer qualifications (Figure 2).

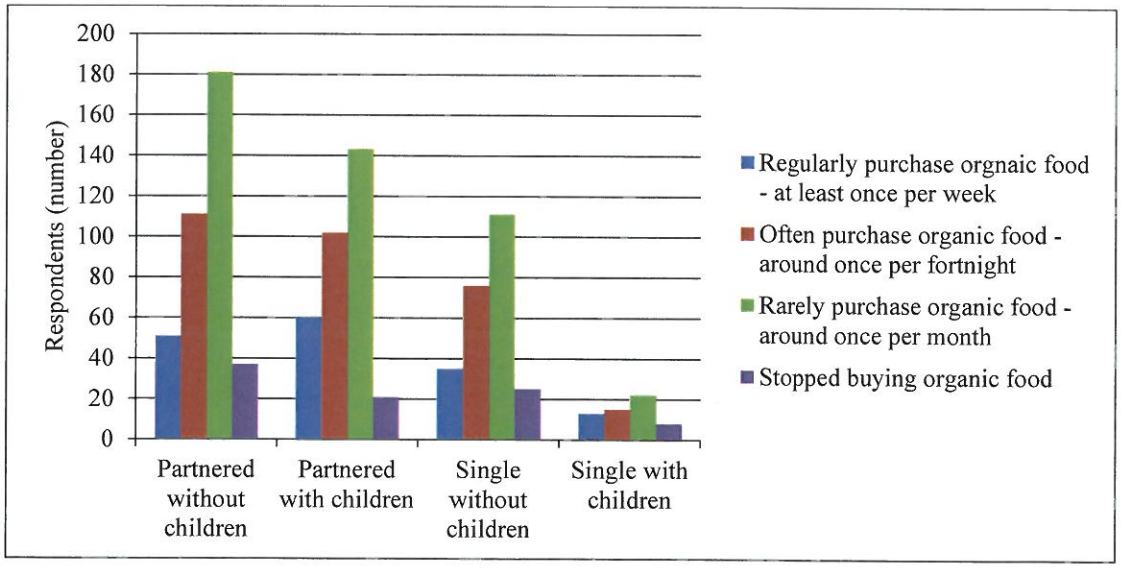


(Source: Derived from ABS 2010 and results from Questionnaire N=1011)

Figure 2: Qualifications of organic food buyers

The results in Figure 2 provide evidence that organic food buyers are from, and equally represented by, all qualification levels in society. As less than 40% have a bachelor degree or higher, this emphasises that organic food buyers are not dominated by more highly educated individuals.

Results are also available for the living arrangements of the organic food consumers (Figure 3).



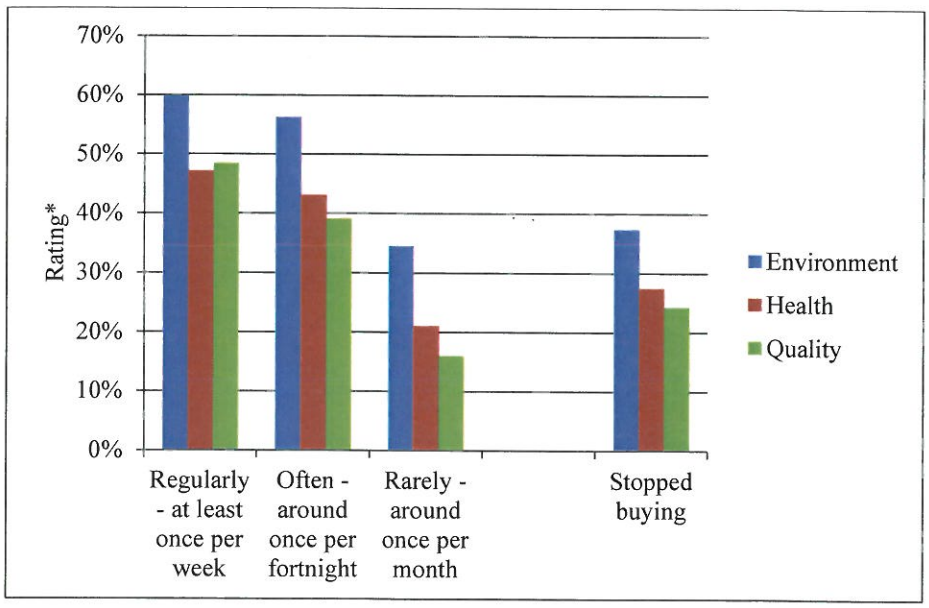
(Source: Questionnaire N=1011)

Figure 3: Living arrangements of organic food buyers

Investigation of the results which profile the living arrangements show that the majority of organic food buyers are partnered (70%), with an approximately equal portion both with, and without, children. Further, across each of these different living arrangements the portion of buyers who purchase organic food at the different frequency levels, that is, regularly through to stopped buying, is approximately the same.

Organic food attributes that are important to consumers

Insights from an analysis of the reasons for purchasing organic food, as perceived by consumers, also assist in understanding which product attributes to emphasise in marketing communications (Figure 4).



*Based on percentage of respondents who 'strongly agreed' or 'agreed' that the attribute was important on a seven point scale that spanned to 'strongly disagree'.

Figure 4: Rating of organic food attributes that are important to consumers

The results in Figure 4 show that concern for the environment is the most important motivation, with health and quality approximately equal second across all levels of purchase frequency. Although these three attributes maintain the same ranking, again across all levels of purchase frequency, as it declines, so does importance of these attributes. This is consistent with the

assumption that higher purchase frequency results from a higher importance being placed on the attributes that differentiate organic products from alternatives.

The fact that those who have stopped buying organic products rate attributes higher than those who purchase 'rarely', but below those who purchase 'often', suggests that other factors, such as changing life circumstances which may result in shifts towards issues such as less time or more difficult access, are the dominant drivers for them to have stopped buying.

Conclusion

Expansion of the organic food market over recent decades can largely be attributed to consumers choosing it as an expression of their concern for their own health and a heightened awareness over the impact of the food system on the environment. Other factors such as increased consumer affluence, greater product diversity and availability have assisted consumers to make this choice. Despite these overall increases in organic food consumption, most consumers remain resistant to purchasing large amounts of organic food. Although they have a positive attitude towards organic food, they only purchase it some of the time, with around two in ever three consumers purchasing organic food, yet its market share is only 1%.

This paper sought to provide insights into the reasons for this attitude-behaviour gap, and how it may be closed, by investigating the role of consumer's organic food purchase frequency. Focusing on purchase frequency revealed a number of insights into organic food buyer's behaviour.

Results from this research indicate that buyers vary in their frequency of organic food purchases, from a relatively small proportion of consumers who purchase it regularly – at least once per week (around one in ten) to many who have never purchased it (around one in four). In contrast to results reported from other surveys these organic food buyers are not dominated by older or more highly educated individuals, with higher than average representation from younger and lower income households. These results also add to the literature by highlighting the fact that most organic food buyers are partnered (70%), with an approximately equal portion both with, and without, children. Whilst there is a solid core of organic food buyers (almost half) who have been purchasing for a long time (more than three years), there is a lot of 'churn'. With only a gradual increase in percentage of the population who are purchasing organic food, estimated to

be 2-5% per year in Australia (derived from BFA, 2012), the new entrants (almost one in five or 20%) who have been purchasing for less than one year must be replacing a large number who leave. And finally those who purchase organic products more frequently place higher importance on the attributes that differentiate organic products from alternatives, namely environment, health and product quality.

Foremost, the findings indicate that the key challenge for the organic food movement will be to convince consumers of the superior 'value' of organic products. Results show that people are consuming organic products across most demographic areas, irrespective of education or profession. Higher purchase frequency across all demographic categories could be achieved if greater importance is placed on the positive attributes that differentiate organic from conventional products.

The findings also draw attention to a number of factors that may be preventing higher purchase frequency. Results showed that a noticeable number of consumers (around one in ten) had bought organic food in the past but have stopped. Further research needs to be conducted to discover why this is the case, and it is likely that this will indicate other considerations that influence food purchasing behaviour. These are likely to include those previously identified as reasons for non-purchase including limited distribution, intermittent availability and high prices. However, detailed research for this lapsed organic food buyer segment may identify other factors that explain their change in behaviour.

Recognition and management of these barriers could contribute to more effectively targeted research into consumer food purchasing motivations, and subsequently the development of more sophisticated marketing strategies for the organic food industry. However with its diverse constituency, ranging from global corporates through to local production and consumption, it is going to be a challenge for the organic industry to achieve the coordination required to develop such a market growth strategy.

In addition, there are a number of methodological issues associated with analysing the market for organic products that may distort results. In particular, most studies, including this one, rely on consumer self-reporting to gather data, rather than observation of actual purchases. Hence these results show what consumers would like to do, rather than what they actually do.

It is likely the organic food consumers will provide fertile ground for further research as industry players seek market growth opportunities, and Government agenda aims to achieve human health and environmental sustainability within an informed consumer choice policy framework.

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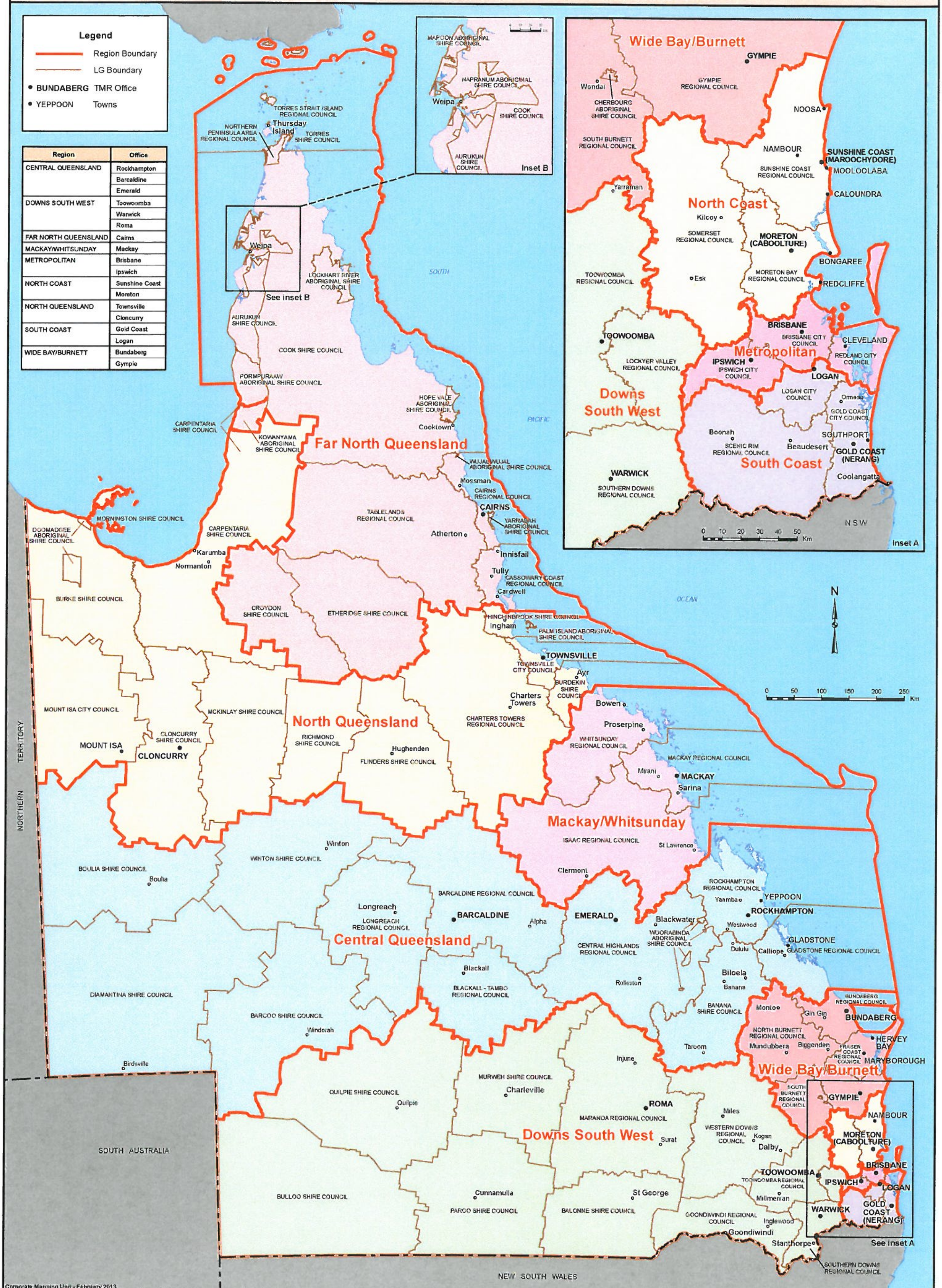
REGION BOUNDARIES FOR DEPARTMENT OF TRANSPORT & MAIN ROADS

compared to local government (LG) areas

Queensland Government



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