

Knowledge Relationships Regarding Organically Produced Food

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Abstract

Purpose – The aim of the study was to establish the status quo with regard to Tshwane housewives' awareness of organically produced food, the level of their self-rated knowledge on organically produced food, and the influence of this level of knowledge on their perceptions, attitudes and purchasing of organically produced food. **Design/methodology/approach** – A questionnaire was developed to obtain information on Tshwane housewives' self-rated level of knowledge of organically produced food, their purchasing behaviour, and their attitudes towards the product. Given a total population of approximately two million residents, multistage cluster sampling was applied, and 445 housewives were interviewed against a required minimum of 384 for probability purposes. Data were collected by means of personal interviews in the dwellings of housewives. The survey was conducted towards the end of 2010. **Findings** – Tshwane housewives are poorly aware of organically produced food. Only 43.4 percent are conversant with the topic, with approximately half of them being reasonably to well inform. Although 91.7 percent of those aware viewed organically produced food as healthy, only 48.2 percent of them had ever purchased it. More than half of all buyers found it difficult to recognise organically produced food in-store. However, a strong indication exists that an increase in the level of knowledge of organically produced food tends to increase positive perceptions and purchasing behaviour. **Practical implications** – The better informed consumers are about organically produced food, the more positive they are towards purchasing it. Marketing communication to make consumers aware and to increase their level of knowledge is of the utmost importance, in order to increase sales. **Originality/value** – Little research has been conducted on South African consumers' overall level of knowledge on organically produced food and the influence thereof on their perceptions, attitudes and purchasing behaviour. This research should contribute to the body of knowledge on the subject.

Key Words: Organically produced food, level of consumer knowledge, knowledge relationships, perceptions, attitudes, and purchasing behaviour.

Introduction

Organically produced food is a relatively new concept in South Africa. It was introduced commercially in 2003 when a major retail chain launched a national organic advertising campaign (Kupka, 2004:26).

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Since then, it has become more freely available and better known; but, according to Cochrane (2008:15-16), South Africans still "don't really understand what organic is". A lacuna exists in the literature on South African consumers' awareness and knowledge of the concept. Similar research has been conducted by a number of researchers in other countries (Magnussen, Arvola, Hursti, Aberg & Sjoden, 2001: 209-226; Roitner-Schobesberger, Darnhofer, Somsook & Vogl, 2008:112-121; Chen, 2007: 1008-1021; Teisl, Fein & Levy, 2009 : 9-10; Koivisto, Hursti & Magnusson: 2003: 207-209; Meixner, Haas, Perevoshchikova & Canavari, 2014:110; Xie, Wang, Yang, Wang & Zang, 2015:1105).

Given that consumer awareness and knowledge, to a large extent, determine consumers' attitudes, perceptions and behaviour (Hawkins, Best & Coney, 2001:324), and that consumer awareness and knowledge, in turn, are functions of previous education and experience (Hornby, 2000:658; Allen, 2004:775), the tracking of consumer awareness and knowledge is very important (Crask, Fox & Stout, 1995:573). This is especially true for products that represent trends, such as organically produced food (Planck, 1998:56; Geldenhuys, 2004:4). In addition, as the ultimate goal of marketers is to influence consumers' purchasing behaviour, consumer awareness and knowledge are important to promotional planners. They acknowledge that purchasing is only part of an overall process influenced, in particular, by consumer motivation, perceptions and attitudes (Belch & Belch, 2009:111-113).

The aim of this study was to establish the status quo with regard to housewives' awareness of organically produced food, the level of their self-rated knowledge on organically produced food, and the influence of this level of knowledge on their perceptions, attitudes and purchasing behaviour towards organically produced food.

Literature review

First and Brozina (2009:185) are of the opinion that consumers who claim healthy lifestyles base this on the selection of the food they consume. They are influenced by the media which stress the need to eat healthily, and emphasize the importance of consuming organically produced food. According to Terrazas (2010:18), three main reasons exist for buying organically produced food: the trend towards 'green' and natural products, the trend towards healthier living, and the perception that organically produced food tastes better. Bedi (2010:18) concludes that housewives perceive organically produced food as healthy and natural, having superior flavour, is free from chemicals and additives, and conserves the environment.

Chen (2007:1008-1009) feels that, although there is no clear evidence that organically produced food is healthier than conventional food, it carries less harmful substances. For these reasons, there has been an increase in the demand for organically produced food (Lempert, 2002:1-2; Kupka, 2004:24; Sentinel, 2005:1-2; Wilkins, 2007:16; Wilkins, 2008:31-33). Although a worldwide trend, the consumption of organically produced food is still relatively new to South African consumers. Being 'new', the principles of the adoption process apply to the marketing of organically produced food, since it is subject to all the factors influencing consumer decision-making and behaviour.

In adopting a new product, consumers pass through the various stages of: awareness, interest, evaluation, trial, and adoption (Kotler & Keller, 2006:659). The consumer must first take note of the new product, develop an interest in it, evaluate information about it, try it – and then decide whether to continue to buy it, or not. In this connection, Kotler and Keller (2006:658) state that the adoption of a new product is a decision by the consumer to become a regular user. Schiffman, Kanuk and Wisenbilt (2010:450), however, refer to adoption as "a micro-process that focuses on the stages through which an individual consumer passes when deciding to accept or reject a new product".

Acceptance leads to repeat purchases, and the process then forms an integral part of consumer behaviour. First and Brozina (2009:186) describe consumer behaviour as "a dynamic interaction of affect and cognition, behaviour and environment, by which human beings conduct the exchange aspects of their lives." In the consumption processes, consumer behaviour and decision-making involve elements, such as needs, personality, motivation, emotions, learning, attitudes, perceptions, feelings, beliefs, knowledge and activities, within a frame of external environmental factors. Ringa (2009:5) points out that all these elements of consumer behaviour play a role in their willingness to adopt organically produced food.

In general, decisions to buy organically produced food are influenced by the level of education of the consumer, the right product information, accessibility to the product, and its price (First & Brozina, 2009:185). Vanderkloet (2008:30-35) indicates that housewives, when buying organically produced food, consider six factors: price, availability, outside influences (family and friends), taste or flavour, concern for health, and concern for the environment.

Consumers claiming awareness of organically produced food should thus have some knowledge of these aspects. In exploring consumer awareness of organically produced food, other researchers have also investigated these aspects, especially Magnussen *et al.* (2001: 209-226) Chen (2007: 1008-1021), and Wang, Al-Shaaban and Nguyen, (2014:298-307). In measuring the level of consumer knowledge, a distinction can be made between objective or factual knowledge and subjective or self-assessed knowledge (Mattila & Wirtz, 2002:216). Whereas factual knowledge is easily measured, it falls short in supplying an overall picture of knowledge on a product category. Self-assessed or self-rated knowledge supplies a more comprehensive picture, but may suffer from overconfidence on the side of the consumer (Mattila & Wirtz, 2002:216). Nevertheless, suppliers of products plan their marketing communication based on the knowledge of consumers about those products. Depending on the level and nature of the knowledge, appropriate marketing measures can then be taken.

According to Hamlin, Welsh and Buisson (1989:873), the nature of consumer food knowledge has changed considerably over time "with 'hard' knowledge being displaced by 'soft' knowledge", influencing suppliers' approach to marketing communication. 'Hard' food knowledge refers to: "experience and personally taught, poor in facts, actively learned and practical food knowledge", while 'soft' food knowledge refers to "rich in facts, non-experiential, passively learned food knowledge acquired from third parties and the media" (Hamlin *et al.*, 1989:879). Instead of using rational arguments, image becomes more important with 'soft' food knowledge (Hamlin *et al.*, 1989:880-881).

Against the above background, and the aim of the study, specific hypotheses were developed revolving around Tshwane housewives' self-rated level of knowledge on organically produced food, and:

- (a) Their perception of the healthiness of organically produced food;
- (b) Their purchases of organically produced food;
- (c) Their perception of the ease of finding stores stocking organically produced food;
- (d) Their perception of the ease of identifying organically produced food in-store;
- (e) The regularity of their purchases of organically produced food;
- (f) Their perception of the price of organically produced food;
- (g) Their feelings when buying organically produced food; and
- (h) Their perception of the importance of buying organically produced food.

Methods

Sampling and data collection

The sample frame for the study was a set of directions involving housewives of all population groups, aged 21 years and older, residing in the Tshwane metropolitan area, in dwellings that have electricity, water, a built-in sink, an electric stove, a geyser, and a flush toilet inside or outside the house. This set of directions represents the minimum requirements to qualify for a Living Standards Measure (LSM)-6 group. LSM-groups are consumer segments based on the South African Advertising Research Foundation (SAARF) Universal Living Standards Measure scale.

The scale is a classification tool, using a combination of variables, to subdivide the South African population into socio-economic groups. The scale is divided into ten segments. Those of least status form the segment referred to as 'SAARF Universal LSM-1', and those of highest status form 'SAARF Universal LSM-10'. The latter category is further subdivided into 'low' and 'high groups.

Given a total population of approximately two million residents, multistage cluster sampling was applied, and 445 housewives were interviewed against a required minimum of 384 for probability purposes. Data were collected by means of personal interviews, in the dwellings of housewives, at the hand of a structured questionnaire. The survey was conducted during the second half of 2010. The respondent profile is reflected in **Table 1**. All demographic groups are well distributed throughout the survey sample, and the percentage distribution of the sample by area is in line with the distribution of the Tshwane population.

Questionnaire

The development of the questionnaire was directed by the need to obtain information on housewives' self-rated level of knowledge of organically produced food, their purchasing behaviour, and their attitudes towards the product. The questionnaire concentrated on:

- (a) Awareness of organically produced food: spontaneous, aided and total;
- (b) Self-rated level of knowledge on organically produced food: a 5-point bipolar scale from completely uninformed to well informed;
- (c) Perception of the healthiness of organically produced food with reasons: a 5-point bipolar scale from very unhealthy to very healthy;
- (d) Previous purchases of organically produced food in terms of types, quantities and stores patronised;
- (e) Regularity of purchases of organically produced food: daily, weekly, monthly or irregularly;
- (f) Ease of identifying organically produced food in-store: a 5-point unipolar scale from not easy at all to very easy;
- (g) Satisfaction with purchases with reasons: a 5-point unipolar scale from not satisfied at all to very satisfied;
- (h) Attitude towards the price of organically produced food: a 5-point bipolar scale from cheap to very expensive;
- (i) Attitude towards the availability of organically produced food: a 5-point bipolar scale from basically unavailable to easily obtainable;
- (j) Feelings when purchasing organically produced food: a 5-point unipolar scale from not good at all to very good; and
- (k) Perception of the importance of buying organically produced food: a 5-point unipolar scale from not important at all to very important.

The question response format for the questionnaire was built on three types of questions: open-ended, closed-ended and scale-response. The questions were structured based on the results of a pilot study and, with the exception of scale-response questions; the questions were not pre-coded, in order to prevent interviewer bias. Given possible ignorance on the subjects of organically produced food, provision was made in the questionnaire for cross-checking and screening during the editing process to scan out obvious thumb-sucking.

Statistical methods

In this study, classification variables were cross-tabulated with awareness, self-rated knowledge, perception, attitude and purchasing behaviour variables. In addition, specific awareness, perception, attitude and purchasing behaviour variables were cross-tabulated with self-rated knowledge variables to test the hypotheses. Statistical analysis included the Pearson Chi-square and one-way analysis of variance (ANOVA). Given the distribution of ordinal data obtained from the study, and having made the assumption that the distribution of all possible means from the same population are approximately normally distributed – as a sufficiently large sample was drawn, parametric tests (ANOVA) were used in testing the hypotheses. Statistical power calculation indicated a level of accuracy of 4.6 percent, suggesting that the probability of correctly rejecting a false null hypothesis is high.

In ensuring reliability and the internal consistency of the data, the database – consisting of 445 respondents – was randomly divided into two approximately equally sized groups of 214 and 228 respondents. The distribution of these sub-samples – pertaining to demographic and some key-study variables -- was tested for significant differences. Chi-square tests of Independence were employed to test the hypotheses. At a 95 percent level of confidence, the results show that all significant values were greater than 0.05, suggesting that the null hypothesis, which states no difference or independence, cannot be rejected in favour of the alternative hypothesis. The sub-samples therefore were assumed to come from the same underlying population, and the data were considered to be internally consistent and reliable.

Results

Awareness, knowledge and purchasing behaviour

Awareness of organically produced food

Spontaneous awareness of organically produced food amounted to approximately one third (34.6 percent) of all the housewives. Of these, 14.3 percent gave an incorrect interpretation, or mentioned that they had only heard of it. Upon explanation of the concept, the total awareness amounted to 43.4 percent.

The results of hypotheses testing indicated that the total awareness of organically produced food differs significantly within all demographic breakdowns, with probability values being as follows: LSM-group ($p = 0.000$), population group ($p = 0.000$), age group ($p = 0.040$), educational level ($p = 0.000$), employment situation ($p = 0.000$) and household size ($p = 0.002$).

The results, furthermore, indicate that a progression in the total awareness of organically produced food occurs within the categories LSM-group and educational level, being the lowest for the lower levels and the highest for the highest level. LSM-10 (high) housewives, White housewives, housewives with a degree, employed housewives, and two-member household housewives showed the highest total awareness levels.

Self-rated level of knowledge on organically produced food

Only 35.8 percent of the 193 respondents aware of organically produced food viewed themselves as being reasonably informed on the subject of organically produced food, with 16.1 percent thinking that they were well informed. The results of the hypotheses testing indicate that the self-rated level of knowledge on organically produced food by Tshwane housewives aware of organically produced food differs significantly within the following demographic breakdowns: LSM-group ($p = 0.048$), age group ($p = 0.007$), and employment situation ($p = 0.003$). The results of the survey, furthermore, indicate that especially LSM-10 (high) housewives view themselves as being informed on organically produced food, as do Asian housewives, older housewives, better educated housewives, not economically active housewives, and five or more member household housewives.

Perception of the healthiness of organically produced food

Basically, all housewives aware of organically produced food viewed it as healthy. The split between the perceptions of 'reasonably healthy' and 'very healthy' is more or less equal. The results of the hypotheses testing indicate that perceptions on the healthiness of organically produced food by Tshwane housewives aware of organically produced food differ significantly within the following demographic breakdowns: population group ($p = 0.009$) and household size ($p = 0.001$). The results of the survey, furthermore, indicate that especially lower LSM housewives, Coloured housewives, young housewives, unemployed housewives, and five or more member household housewives perceive organically produced food as being healthy. The reasons for viewing organically produced food as healthy include: no chemicals used (42.4%), naturally grown (40.7%), and high quality food (16.9%).

Previous purchases of organically produced food

Approximately half of all housewives aware of organically produced food had purchased organically produced food previously. Purchasers included especially LSM-10 (high) housewives, White housewives, older housewives, housewives with a degree, and two-member household housewives. The results of the hypotheses testing indicate that previous purchases of organically produced food by Tshwane housewives aware of organically produced food differed significantly within the following demographic breakdowns: LSM group ($p = 0.001$) age group ($p = 0.012$), educational level ($p = 0.017$), and employment situation ($p = 0.006$).

The results of the survey, furthermore, indicate that lower LSM housewives, African, Coloured and Asian housewives, housewives below the age of 41 years, and unemployed housewives, although aware of organically produced food, had never previously purchased organically produced food. The reasons for not purchasing include: not seen displayed/labelled (37.0%), too expensive (30.0%), no need (15.0%), not available nearby (13.0%), and no specific reason (5.0%).

Organically produced food purchased and stores patronised

The most popular organically produced food purchased included fresh vegetables, fresh fruit and dairy products. Woolworths is the most popular outlet for organically produced food, followed by Pick 'n Pay with Checkers, greengrocers and farm stalls together holding the third position. Health shops, Spar and other supermarkets also represent places where organically produced food can be purchased.

Regularity of purchases of organically produced food

Organically produced food is not purchased on a daily basis. The majority of buyers purchase either monthly or irregularly. Approximately a third purchase organically produced food on a weekly basis. The results of the hypotheses testing indicate that the regularity with which organically produced food is purchased by Tshwane housewives aware of organically produced food differ significantly within the following demographic breakdowns: LSM group ($p = 0.044$), population group ($p = 0.000$), educational level ($p = 0.028$), and household size ($p = 0.041$).

The results of the survey, furthermore, indicate that two thirds of all buyers buy organically produced food monthly to irregularly. Only a third of the consumers buy it weekly. Weekly buyers are predominantly LSM-10 (High) housewives, White housewives, housewives aged 31 to 40 years, housewives with a degree, and employed, as well as not economically active housewives.

Ease of identifying organically produced food in-store

Buyers of organically produced food are equally divided between those who find it easy to recognise organically produced food in stores (48.4 percent), and those who do not (51.6 percent). In certain stores, label indications and displays make it easy to recognise organically produced food, while in others housewives must search for leads or simply guess. The results of the hypotheses testing indicate no statistically significant differences between the ease of recognising organically produced food in-store by Tshwane housewives aware of organically produced food and their demographic breakdowns. The results of the survey, however, indicate that LSM-10 (Low), Coloured housewives, grade 12 housewives, not economically active housewives, and two-member household housewives seem to find it easy to recognise organically produced food in-store. Young housewives, unemployed housewives and one-member household housewives seem to have difficulty in recognising organically produced food.

Quantities purchased at a time

An equal number of buyers purchase small (up to 500gm/500ml) and large (more than 1kg/1litre) quantities of organically produced food at a time. Approximately a quarter of those that purchase, purchase in medium (between 500gm/500ml and 1kg/1litre) quantities at a time. The results of the hypotheses testing indicate no statistically significant differences between the quantities in which organically produced food is purchased at a time by Tshwane housewives aware of organically produced food and their demographic breakdowns. The results of the survey, however, indicate that Coloured and Asian buyers, especially, buy in large quantities at a time. Opposed to this, buyers between the ages of 21 to 30 years, buyers with a degree, unemployed buyers, and one- and two-member household buyers tend to buy in smaller quantities at any given time.

Reasons for purchasing organically produced food

Health considerations comprise the most important reason for buying organically produced food. Other reasons, such as being natural, best products and freshness also contribute to the buyers' reasoning.

Satisfaction with purchases of organically produced food

Buyers of organically produced food tend to be reasonably to very satisfied with their purchases. The results of the hypotheses testing indicate no statistically significant differences between the satisfaction with organically produced food purchased by Tshwane housewives aware of organically produced food and their demographic breakdowns.

The results of the survey, however, indicate that all demographic breakdowns show a high degree of satisfaction with their purchases. However, LSM-10 housewives, White housewives, housewives between 41 and 50 years of age, housewives with an educational level below grade 12, unemployed housewives, and five or more member household housewives show below-average satisfaction with their purchases.

The reasons for satisfaction by those housewives who indicated satisfaction include: healthiness (39.8 percent), freshness (24.1 percent), good taste (16.9 percent), good quality (9.6 percent), and being natural (9.6 percent). Healthiness, freshness and good taste are the most important reasons for consumer satisfaction. The reasons for dissatisfaction by those who indicated such include: overpriced (67.7 percent) and no real difference (33.3 percent).

Perceptions of the price of organically produced food

Organically produced food is looked upon as being reasonably expensive to very expensive by the buyers thereof. None view it as cheap, or are indifferent on whether it is cheap or expensive. Whereas approximately 75 percent of buyers view it as reasonably expensive, approximately 25 percent view it as very expensive. The results of the hypotheses testing indicate no statistically significant differences between attitudes towards the price of organically produced food purchased by Tshwane housewives aware of organically produced food and their demographic breakdowns.

The results of the survey, however, indicate that consumers from all demographic breakdowns view organically produced food as expensive. However, lower LSM housewives, African and Asian housewives, older housewives, housewives with an educational level below grade 12, not economically active housewives, and five or more member household housewives have a more moderate view on the price of organically produced food.

Perceptions of the availability of organically produced food

The overall majority of buyers view the availability of organically produced food as limited, since only certain stores stock it. Approximately ten percent of all buyers view it as 'difficult to find'. The results of the hypotheses testing indicate, with the exception of LSM group, no statistically significant differences between attitudes towards the availability of organically produced food purchased by Tshwane housewives aware of organically produced food and their demographic breakdowns. The results of the survey, however, indicate that all demographic breakdowns of consumers view the availability of organically produced food as being limited. LSM-8 housewives, African housewives, older housewives, housewives with an educational level below grade 12, unemployed housewives, and one-member household housewives have a more moderate view on the availability of organically produced food.

Feelings when purchasing organically produced food

The overall majority of buyers feel reasonably to very good when buying organically produced food. The results of the hypotheses testing indicate that the ways Tshwane housewives aware of organically produced food feel when purchasing organically produced food differ significantly within the following demographic breakdowns: population group ($p = 0.004$) and employment situation ($p = 0.015$). The results of the survey, furthermore, indicate that consumers from all demographic breakdowns tend to feel good when buying organically produced food. However, LSM-10 (high) housewives, White housewives, housewives aged 41 to 50 years, housewives with an educational level of grade 12 and those with a degree, not economically active housewives, and five or more member household housewives have a more moderate view of their feelings when purchasing organically produced food.

Perceptions of the importance of purchasing organically produced food

The majority of buyers of organically produced food view such purchases as reasonably to very important. Approximately one fifth, however, are uncertain on the importance of buying organically produced food. The results of the hypotheses testing indicate, with the exception of population group, no statistically significant differences between the attitudes towards the importance of purchasing organically produced food purchased by Tshwane housewives aware of organically produced food and their demographic breakdowns. The results of the survey, however, indicate that uncertainty about the importance of buying organically produced food is noticeable, especially amongst LSM-9 and LSM-10 (high) housewives, White housewives, young housewives, housewives with a degree, employed housewives, and one-member household housewives.

Knowledge relationships

Self-rated level of knowledge versus perception of the healthiness of organically produced food

The results of the hypotheses testing indicate that statistically significant differences exist between Tshwane housewives' perception of the healthiness of organically produced food and their self-rated level of knowledge on organically produced food ($p = 0.000$). The results of the survey also show that a progression occurs in the 'very healthy' perception of housewives from those completely uninformed to those well informed, with 87.1 percent of the well-informed housewives rating organically produced food as being 'very healthy'. The 'reasonably healthy' perception decreases correspondingly.

Self-rated level of knowledge versus purchases of organically produced food

The results of the hypotheses testing indicate that statistically significant differences exist between Tshwane housewives' level of knowledge on organically produced food and their purchases of organically produced food ($p = 0.000$). The results of the survey also show that a progression occurs in the percentages of housewives that have purchased organically produced food, from those completely uninformed to those well informed, with 80.7 percent of the well-informed housewives having purchased organically produced food previously. The 'never-purchased' category decreases correspondingly.

Self-rated level of knowledge versus perception of the ease of finding stores stocking organically produced food

The results of the hypotheses testing indicate that no statistically significant differences exist between Tshwane housewives' level of knowledge on organically produced food and their perceptions of the availability of organically produced food ($p = 0.990$). The results of the survey, however, show that the better-informed housewives are on organically produced food, the less difficulty they have in finding organically produced food. The results also indicate that difficulty in finding organically produced food decreases from being uninformed to being informed.

Self-rated level of knowledge versus perception of the ease of identifying organically produced food in-store

The results of the hypotheses testing indicate that no statistically significant differences exist between Tshwane housewives' level of knowledge on organically produced food and their perceptions of the difficulty in identifying organically produced food ($p = 0.592$). The results of the survey, however, show that the better informed housewives are on organically produced food, the more easily they can identify organically produced food. The results also indicate that the identification of organically produced food is not easy.

Self-rated level of knowledge versus regularity of purchases of organically produced food

The results of the hypotheses testing indicate that no statistically significant differences exist between Tshwane housewives' level of knowledge on organically produced food and the regularity with which they purchase such organically produced food ($p = 0.229$). The results of the survey, however, show that the better informed housewives are on organically produced food, the more regularly they will tend to buy organically produced food. The results also indicate that there is a downward progression in the irregularity of purchasing – from being uninformed to being well informed.

Self-rated level of knowledge versus perception of the price of organically produced food

The results of the hypotheses testing indicate that no statistically significant differences exist between Tshwane housewives' level of knowledge on organically produced food and their perceptions of the price of organically produced food ($p = 0.508$). The results of the survey, however, show that the better informed housewives are on organically produced food, the more they tend to view the price of organically produced food as being affordable to reasonably expensive. The results also indicate that a perception that organically produced food is very expensive decreases from being uninformed to being well informed.

Self-rated level of knowledge versus feeling when buying organically produced food

The results of the hypotheses testing indicate that statistically significant differences exist between Tshwane housewives' level of knowledge on organically produced food and their feelings when purchasing organically produced food ($p = 0.032$). The results of the survey also show that the better informed housewives are on organically produced food, the better they feel when buying organically produced food. The results furthermore indicate that an uncomfortable feeling decreases for buyers: from being uninformed to being well informed.

Self-rated level of knowledge versus perception of the importance of buying organically produced food

The results of the hypotheses testing indicate that statistically significant differences exist between Tshwane housewives' level of knowledge on organically produced food and their perceptions of the importance of buying such organically produced food ($p = 0.000$). The results of the survey also show that the better informed housewives are on organically produced food, the more important they view it to buy organically produced food. The results, furthermore, indicate that the importance of buying such organically produced food decreases – from being uninformed to being well informed.

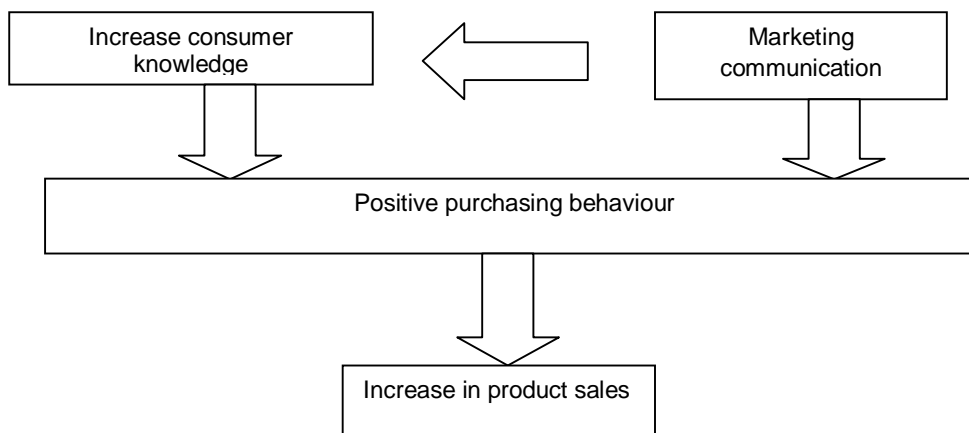
Discussion

Tshwane housewives lack awareness of organically produced food. Only 43.4 percent are conversant with the topic, with approximately half of them being reasonably to well informed. Although 91.7 percent of those aware see organically produced food as being healthy, only 48.2 percent of them had ever purchased it. More than half of all buyers found it difficult to recognise organically produced food. Buyers of organically produced food purchased primarily organic vegetables, fruit or dairy products. These are purchased primarily at Woolworths (82.8 percent of all buyers) and Pick 'n Pay (43.0 percent of all buyers). Purchases are done on a monthly basis to irregularly, and in varying quantities. It is generally looked on as being expensive and not freely available. Of all buyers, the overall majority are satisfied with their purchases, feel good about their purchases, and think it is wise to purchase organically produced food. They are, however, less certain about the importance of buying such food.

The results, however, also indicate that the level of knowledge of organically produced food is, generally, increasing:

- The perception of the healthiness thereof;
- Trial purchases thereof;
- The ease of finding stores stocking it;
- The ease of identification thereof in-store;
- The regularity of purchases thereof;
- A reasonable price perception thereof;
- A positive feeling towards purchasing it; and
- The perception of importance of buying it.

From the preceding, it follows that the better informed consumers are on organically produced food, the more positive they are towards purchasing it. Marketing communication to make consumers aware and to increase their level of knowledge is of the utmost importance. This importance is summarised in the following model.



The model indicates the important influence of communication on consumer knowledge, the influence of both communication and consumer knowledge on consumer purchasing behaviour, and the influence of the latter again on product sales. Marketing communication increases consumer knowledge. This, in turn, stimulates positive purchasing behaviour, resulting in an increase in product sales. As knowledge increases, positive perceptions, attitudes and behaviour towards organically produced food, future marketing communication should concentrate especially on introducing the concept to consumers and influencing their beliefs about the product. Information is crucial to attitude formation and change.

References

- ALLEN, R. 2004. *The Penguin Dictionary*. London. Penguin Books.
- BELCH, G.E. & BELCH, M.A. 2009. *Advertising and Promotion: An Integrated Marketing Communications Perspective*. 8th ed. International. McGraw-Hill.
- CHEN, M-F. 2007. Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and Preference*, 18:1008-1021.
- CRASK, M., FOX, R.J. & STOUT, R.G. 1995. *Marketing research: Principles and application*. Englewood Cliffs, New Jersey. Prentice Hall.
- FIRST, I. & BROZINA, S. 2009. Cultural influences on motives for organic food consumption. *EuroMed Journal of Business*, 4(2):185-199.
- GELDENHUYS, H. 2004. Soaring demand for organic food overwhelms stores. *Business Times, Sunday Times*. November 7: 4.
- HAMLIN, R.P., WELSH, R.S. & BUISSON, D.H. 1998. Communicating with the meat consumer: The key role of existing knowledge. *British Food Journal*, 100(4):872-884.
- HAWKINS, D.I., BEST, R.J. & CONEY, K.A. 2001 *Consumer behaviour: Building marketing strategy*. 8thed. New York. McGraw-Hill.
- HORNBY, A.S. 2000. *Oxford advanced learner's dictionary of current English*. 6th ed. Oxford. Oxford University Press.
- KOIVISTO-HURSTI, U.K. & MAGNUSSON, M.K. 2003. Consumer perceptions of genetically modified and organic foods: What kind of knowledge matters? *Appetite*, 41:207-209.
- KOTLER, P. & KELLER K.L. 2006. *Marketing management*. 12th ed. Pearson Education. Upper Saddle River. New Jersey.
- KUPKA, J. 2004. Organic markets fail to meet expectation. *Farmers Weekly*. February 20: 26.
- LEMPERT, P. 2002. (The A.C. Nielsen Company): *Organic food buyers loyal, non-buyers not interested*. [Online]. Available from <http://www.acnielsen.com/news/american/us/2002/200220821.htm>.
- MAGNUSSON, M.K., ARVOLA, A., HURSTI, U.K., ÅBERG, L. & SJÖDÉN, P. 2001. Attitudes towards organic foods among Swedish consumers. *British Food Journal*, 103(3):209-226.
- MATTILA, A.S. & WIRTZ, J. 2002. The impact of knowledge types on the consumer search process: An investigation into the context of credence services. *International Journal of Service Industry Management*, 13(3):214-230.
- PLANCK, N. 1998. Green Gardens Grow. *Time*. August 24:56-57.
- RAAB, C. & GROBE, D. 2005. Consumer knowledge and perceptions about organic food. *Journal of Extension*, 43(4). [Online]. Available from <http://www.joe.org/joe/2005august/rb3.php>.
- RINGA, N. 2009. Agent-based models of consumer behavior in social networks adoption of organic foods. M.Sc. Dissertation, the University of Guelph.
- ROITNER-SCHOSBESBERGER, B., DARNHOFER, I., SOMSOOK, S. & VOGL, C.R. 2008. Consumer perceptions of organic foods in Bangkok, Thailand. *Food Policy*, 33:112-121.
- SCHIFFMAN, L.G., KANUK, L.L. & WISENBLIT, J. 2010. *Consumer behavior*. 10th ed. Pearson Education. International Edition.
- SENTINEL, S.B. 2005. Research shows 23% of U.S. consumers are consistently buying organic food & holistic health products. Organic Consumers Association. [Online]. Available from <http://www.organicconsumers.org/organic/23percent32905.cfm>
- SOUTH AFRICAN ADVERTISING RESEARCH FOUNDATION. 2006. *SAARF Living Standards Measure*. [Online]. Available from <http://www.saarf.co.za/LSM/lsm.htm>
- TEISL, M.F., FEIN, S.B. & LEVY, A.S. 2009. Information effects on consumer attitudes toward three food technologies: organic production, biotechnology, and irradiation. *Food Quality and Preference* (2009):10.1016/j.foodqual.2009.07.001.
- TERRAZAS, M. 2010. The truth about organics. *Bouquet*. June-July 2010:18-19.
- VANDERKLOET, J.A.E., 2008. Organic food consumers: Modeling the food choice process. M.Sc. Dissertation, Edmonton.
- WILKINS, L. 2007. Going organic: Increased awareness and a wider choice drive growth. *Supermarket & Retailer*. September 2007:55-56.
- WILKINS, L. 2008. Healthy customers, healthy profits. *Supermarket & Retailer*, 58(1):33.

TABLE 1: Demographic characteristics of the survey sample

Demographic characteristics	n	Percentage distribution
LSM Group		
LSM 7	35	7.87
LSM 8	62	13.93
LSM 9	147	33.03
LSM 10 –Low	62	13.93
LSM 10 –High	139	31.23
Total	445	100.00
Population Group		
African	260	58.43
Coloured	30	6.74
Asian	39	8.76
White	116	26.07
Total	445	100.00
Age Group		
21 – 30 years	125	28.09
31 – 40 years	123	27.64
41 – 50 years	109	24.49
50+ years	88	19.78
Total	445	100.00
Educational level		
Up to Grade 11	132	29.66
Grade 12	199	44.72
Diploma	71	15.96
Degree	43	9.66
Total	445	100.00
Employment situation		
Employed	232	52.13
Unemployed	118	26.52
Not economical active	95	21.35
Total	445	100.00
Household size		
Single	23	5.17
Two	63	14.16
Three to four	189	42.47
Five and more	170	38.20
Total	445	100.00
Area of residence		
Tshwane East	133	29.89
Tshwane West	104	23.37
Tshwane North	123	27.64
Tshwane South	40	8.99
Tshwane Central	45	10.11
Total	445	100.00