

**The acceptability and use of convenience foods
by black women employed
by government in Mpumalanga**

by

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Declaration

I hereby declare that the script submitted in partial fulfilment of the requirements for the degree Magister in Consumer Science: General (coursework) in the Faculty of Natural and Agricultural Sciences in the Department of Consumer Science at the University of Pretoria is my own original work and has not been submitted at any other University.

I further declare that all sources cited or quoted are acknowledged by a comprehensive list of references.

BD SIMELANE

Expression of Gratitude and Acknowledgement

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Abstract

The acceptability and use of convenience foods by black women employed by government in Mpumalanga

The recent increase in the number of black working women has meant that time has become an even more precious commodity in the majority of households with working women than before. Growth in women's participation in the labour market has tended to stimulate the demand for time-saving goods and services, especially convenience foods to cope with time pressure in the preparation of meals. South African working women are moving towards the consumption of convenience foods as they become busier, managing both work and household chores, and also having more disposable income.

This study aimed at gathering ideas and insight on the acceptability and use of convenience foods by black women employed by government in Mpumalanga. It investigated the consumption frequency of convenience foods in four categories, the contributing sensory attributes and the influence of resources, the socio-cultural environment and the occasion or situation on the acceptability and use of convenience foods. Food outlets used by black working women for the purchase of convenience foods were also identified.

To elicit relevant information, a quantitative research design and survey techniques using structured questionnaires, with open and closed-ended questions were used to gather information. With the literature review and the objectives of the study in mind, 200 working women employed by government at the government Boulevard complex in Nelspruit formed the sample group. The Statistical Package for the Social Sciences Version 9.0.1 (SPSS), a computer statistical data programme. Descriptive and inferential statistics facilitated data analysis.

From the discussion and interpretation of the results of the sample survey it was clear that black working women tend to either use certain types of convenience foods in the four convenience food categories less frequent (not more than twice in a week) or to use certain types of convenience foods, frequently (3 -4 times in a week or 5 - 6 times and every day of the week). The results showed clearly that there were relatively high proportions of working women (more than 56, 5% of the respondents) who were low users of almost each type of the convenience foods in the four convenience food categories except for baked products, cereal dishes, fried/grilled/roasted meat, and fully prepared refrigerated salads in category A; meat stews and fully prepared vegetable dishes in category B; breakfast cereals, vegetable salad ingredients, instant soups and instant sauces in category C and cleaned/peeled ready to cook vegetable items, pre-cut frozen vegetables, crumbed frozen fish and crumbed frozen or refrigerated meat portions in category D.

Moreover, the findings confirmed that the sensory attributes, appearance, texture, smell and taste and flavour were considered very important in the acceptability and use of convenience foods. Resources, the socio-cultural environment and occasion or situation were also seen to have had a positive influence on the acceptability and use of convenience foods by the black women employed by government in Mpumalanga who participated in the survey.

The study has contributed to the limited literature on the use of convenience foods especially by black working women. Moreover, food product developers and retailers will gain insight into the provision of convenience foods relevant to the needs and desires of time pressed consumers.

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CHAPTER 1

General Orientation to the Study

1.1 INTRODUCTION AND PROBLEM STATEMENT

One of the greatest changes observed in present day South African society is in the life-styles of the black population groups. Particularly noteworthy is the gradual shift in food consumption patterns from the traditional to the Western, a trend reported on over the past decades in the work of several researchers (Viljoen, Botha & Boonzaaier, 2005; Hinze, Karg, Van Zyl, Mahomed & Steyn, 2004; Van Eeden & Gericke, 1996). These changes can be attributed, amongst other factors, to the influence of migration, urbanisation, industrialisation; acculturation, education and women's involvement in the labour market and economic development (Viljoen *et al.*, 2005; Hinze *et al.*, 2004; Cant, Brink & Brijball, 2002). Contact with other cultures, especially with the Western-oriented societies, and women's increasing participation in the formal labour market, have created the situation in which South African people have not only adopted some aspects of the Western food system, but also adapted and changed their traditional food practices due to their exposure to Western foods, including convenience foods (Viljoen *et al.*, 2005; Rousseau, 2003; Walker & Charlton, 2001; Sobal, 2000; Van Eeden & Gericke, 1996; Fieldhouse, 1995).

The role of women in black households is also changing dramatically. Most women find themselves working outside the home to supplement their husband's income on the one hand, whilst striving for self – actualisation on the other (Kok, 2003; Gcabo, 2003; Rousseau, 2003; Cant *et al.*, 2002). The positive aspect about these changes is that women now have some measure of economic independence and this has had an impact on the choices available to them in the labor market and in household chores. It appears that, as the numbers of black women continue to increase in the

labor market, there is a rising new demand in terms of the purchase of time-saving goods and services, especially convenience foods particularly to cope with time pressure in the preparation of meals. The need for women to save time in food preparation has increased the share of the food budget spent on processed foods, convenience foods, snacks and meals available as street foods (Enslin, 2006; Jabs & Devine, 2006; Brown, 2005; Rousseau, 2003; Spoelstra, 2003; Cant *et al.*, 2002; Connors, Bisogni, Sobal & Devine, 2001; Walker & Charlton, 2001; Sobal, 2000; Levin, Maxwell, Armar-Klemesu, Ruel, Morris & Ahiadeke, 1999).

Brown (2005) contends that, despite the advent of labour-saving devices such as washing machines, vacuum cleaners and convenience foods, working women with or without children are finding that there are still heavy demands on their time. Enslin (2006) and Brown (2005) emphasise that South African working- women are moving towards the consumption of convenience foods as they become busier and also have more money. According to research, South African black households, especially dual earner families, regard time-saving goods such as electrical stoves, microwave ovens, refrigerators and other electrical appliances as priority items in the home (Cant *et al.*, 2002; Rousseau, 2003; Erasmus, 1998; Erasmus, 1997). The purchase of these electrical appliances by black consumers in South Africa has been confirmed as being ascribed to several motivational factors of which, time and human energy saving are accepted as the most important. Furthermore, it has been found that, in South African households, the women play a prominent part in buying decisions, especially of food products and other household goods (Cant *et al.*, 2002; Erasmus, 1998).

Researchers in the industrialised economies of the world, as typified by Western Europe and North America, have observed a similar trend. In these countries more than half of all households are already headed by a woman, working part- or full-time outside the home (Brody & Lord, 2000; Asp, 1999; Sloan, 1998; Kendal, 1998; Madill-Marshall, Heslop & Duxbury, 1995; Graf & Saguy, 1991). As the number of women in the workforce escalates and their responsibilities increase, there is less

time for housework, shopping and other chores, and even less time to cook and eat. This can be attributed to the fact that working women come back home from work exhausted and time pressured (Akabay, Tiryaki & Gul, 2007; Costa, Dekker, Beumer, Rombouts & Jongen, 2001; Connors *et al.*, 2001; Sloan, 1998; Davies, 1997; Bonke, 1996; Gofton, 1995; Foster & Mammen, 1992). In a study conducted on a group of South African women (Cant *et al.*, 2002), it is reported that the women interviewed announced that they disliked cooking. These researchers suggest that this major change in attitude impacts on how advertisements target women's changing needs in the present-day world by offering new products especially developed for them, particularly in the food line (Cant *et al.*, 2002).

As illustrated above, the increase in the number of households run by working women has caused time to become an even more precious commodity to most families with working women, because of the time constraints attached to their work experience and other environmental factors, such as resource availability and the demands of the socio-cultural environment. Working women are mostly busy and more 'time poor' as far as doing household chores is concerned than women who do not work outside home (Kok, 2003; Costa *et al.*, 2001; Madill-Marshall *et al.*, 1995). Because their time is limited, they tend to accept and use convenience food products and other time saving goods more freely. A critical factor too is that, though they are 'time poor', materially they are richer in disposable money income, enabling them to buy convenience food products (Enslin, 2006; Brown, 2005; Davies, 2001; Tillotson, 2003; Kok, 2003; Elitzak, 2002; Goften, 1995; Wyne, Lee & Moons, 1994). Several researchers, such as Reed, McIlveen-Farley & Strugnell, 2003; Kinsey, 1997 and Mckenzie, 1994, have already noted the positive link that exists between working women and the purchase, acceptance and utilisation of convenience foods. To the contrary in a study done by Reilly, in 1982, in Arizona in America, on working wives and convenience consumption, found no direct relationship between working women and the use of convenience foods.

Research in South Africa on the use of convenience foods is very limited. The only recent available South African research is the qualitative study done by Kok (2003) on certain career women's perceptions of convenience food with regard to its choice, purchase and utilisation. Results from interviewing eight white South African career women showed that certain convenience foods were perceived as time pressure relievers, giving them time to cherish family ties. Kok (2003) argues that positive perceptions of certain convenience foods could lead to brand loyalty and repetitive purchases of the same product. On the contrary, negative perceptions could be obstacles to the consumption of a particular convenience food product.

Furthermore, the participants in Kok's study experienced time pressure especially during the week and bought and used convenience food products even though they were experienced and capable of preparing food from scratch (Kok, 2003). Kok (2003) contended that career women can definitely be regarded as a target market for convenience foods, but realised that they need to be further grouped in different categories, for example, women from single, nuclear and extended families as their needs and desires differ. Convenience foods offer more time for the working woman to pay attention to her work, family, friends and other personal interests. Therefore, it can be inferred that there is a positive link between working women and the purchase and use of convenience foods (Kok, 2003; Reed *et al.*, 2003).

However, despite the increasing importance of working women's consumer preferences with respect to the acceptance or purchase and use of convenience food products, little if any, is known about the Black South African consumer, more specifically convenience food consumers in Mpumalanga. The limited literature regarding the acceptability and use of convenience foods by black working women is identified as a lacuna (knowledge gap) in the Consumer Science research field, regarding this group. To address the recognised knowledge gap, this study will focus on determining the frequency with which black working women, employed by government in Mpumalanga, accept and use convenience food products in the different convenience food categories. The research problem for this study is

therefore formulated as follows: “What is the acceptability and use of convenience foods black women employed by government in Mpumalanga?” In achieving this, the research will also determine which sensory attributes contribute to the choice, acceptance and use of convenience foods. The influence of resources, the social environment and the occasion and situation, on the use of convenience food products by black working women will also be investigated.

The research findings addressing the research problem will benefit the food industry and retail trade in terms of providing relevant convenience foods for the ‘time poor’ consumers and understanding the critical factors that influence working women’s convenience food consumption behaviour, thus helping them make appropriate improvements. The academic contribution of this study will be a contribution to the limited available information about the South African black working women’s consumption behaviour in relation to convenience food products.

1.2 AIM OF THE RESEARCH STUDY

In response to the research problem highlighted above, the aim of the study is: To determine the frequency with which convenience food products in the different convenience food categories are accepted and used by black working women employed by government in Mpumalanga.

1.3 STUDY AREA

The study was done in Mpumalanga, one of South Africa’s nine provinces (see Figure 1.1 below). With a population of 3,122,991 people, it constitutes less than 7% of the total population of South Africa. Of this population 1,625,513 or 52% of the population is female, which is more than half of the population. Males comprise 1,497,478 (48%) of the population (Stats SA, 2004). Mpumalanga occupies 6, 5% of the surface area of South Africa and is situated between KwaZulu-Natal, Free State, Gauteng, and Limpopo provinces, and Swaziland.

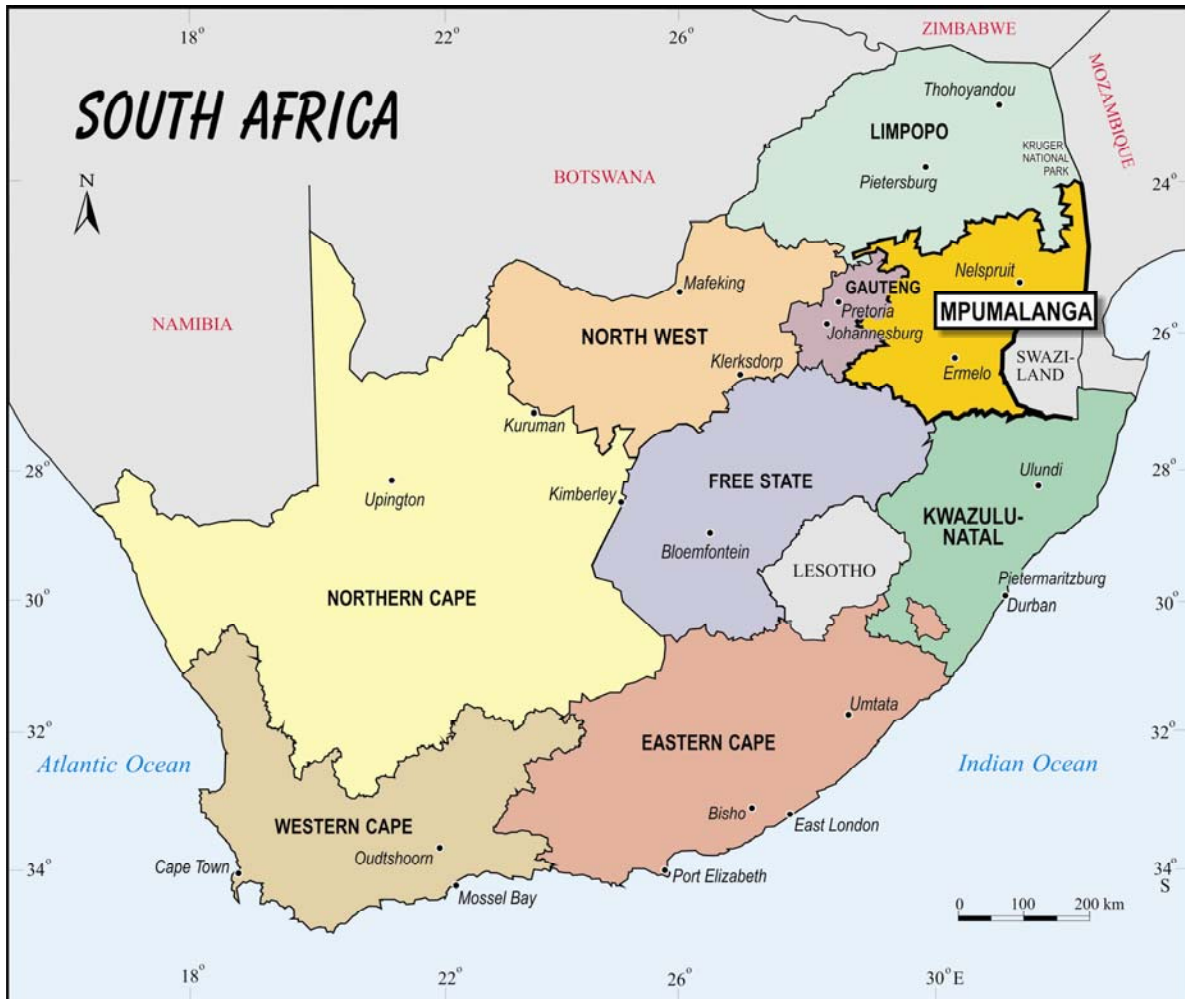


Figure 1.1: Map of South Africa

The capital city of Mpumalanga is Nelspruit. Some government departments are situated at a government complex in Nelspruit called Government Boulevard, Riverside Park. People employed at the Government complex come from all three regions, Ehlanzeni, Gert Sibande and Nkangala that form the Mpumalanga province. There are 32% women compared to 38% men working in Mpumalanga (Stats SA, 2004), the 30% obviously comprise of unemployed men and women.

The prevalence of black women in the labour force in Mpumalanga underscores the need for this study on the acceptability and use of convenience foods in the province. One would like to assume that black working women in Mpumalanga use

convenience foods frequently in order to save time on meal preparation. Moreover, it is further suggested that sensory attributes, resource availability, the impact of the socio-cultural environment and the occasion and situation have an influence on the acceptability and use of convenience foods by black women employed by government in Mpumalanga. These two aspects are the prime focus of this research.

Convenience food products are readily available in Mpumalanga and represent the categories suggested for this research (see chapter 2). It is believed that the large variety of convenience foods available in supermarkets and *spaza shops* (i.e. unregistered shoplets in a township) would be an automatic choice of working women. This is because working women experience time pressures especially in food preparation and quite often have available disposable money income to spend (Enslin, 2006; Brown, 2005; Davies, 2001; Tillotson, 2003; Kok, 2003; Elitzak, 2002; Goften, 1995; Wyne *et al.*, 1994).

1.4 APPROACH TO AND THE COURSE OF THE STUDY

As the researcher aimed at gathering ideas and insight on the acceptability and use of convenience foods by black women employed by government in Mpumalanga as well as determining the frequency with which black working women use convenience foods, the study is therefore exploratory and descriptive in nature. In this study a quantitative research design and survey research techniques, using a structured questionnaire with open and closed-ended questions was used to gather information for the study. The structured self-administered questionnaire (Appendix A) focused on responding to all the objectives set for the study.

An observation checklist (Appendix B) to observe the availability of the convenience foods from the four convenience food categories was used at the different food outlets where the working women purchase their convenience food products. This was done for triangulation purposes. The primary data collection technique was the self-administered questionnaire.

With the review of relevant literature, as well as the objectives of this study, in mind, 200 (n=200) working women employed in the different government departments at the Government Boulevard Complex were used as the sample group (see par. 3.5.). A description and motivation for the sample size, the choice and nature of the data collection and data analysis techniques, the development of the questionnaire and the pilot-test of this research study are set out in Chapter 3.

1.5 FORMAT AND STYLE OF THE RESEARCH REPORT

The written account of the research reflects the practical developments of the research and is divided into five chapters (Fig. 1.2)

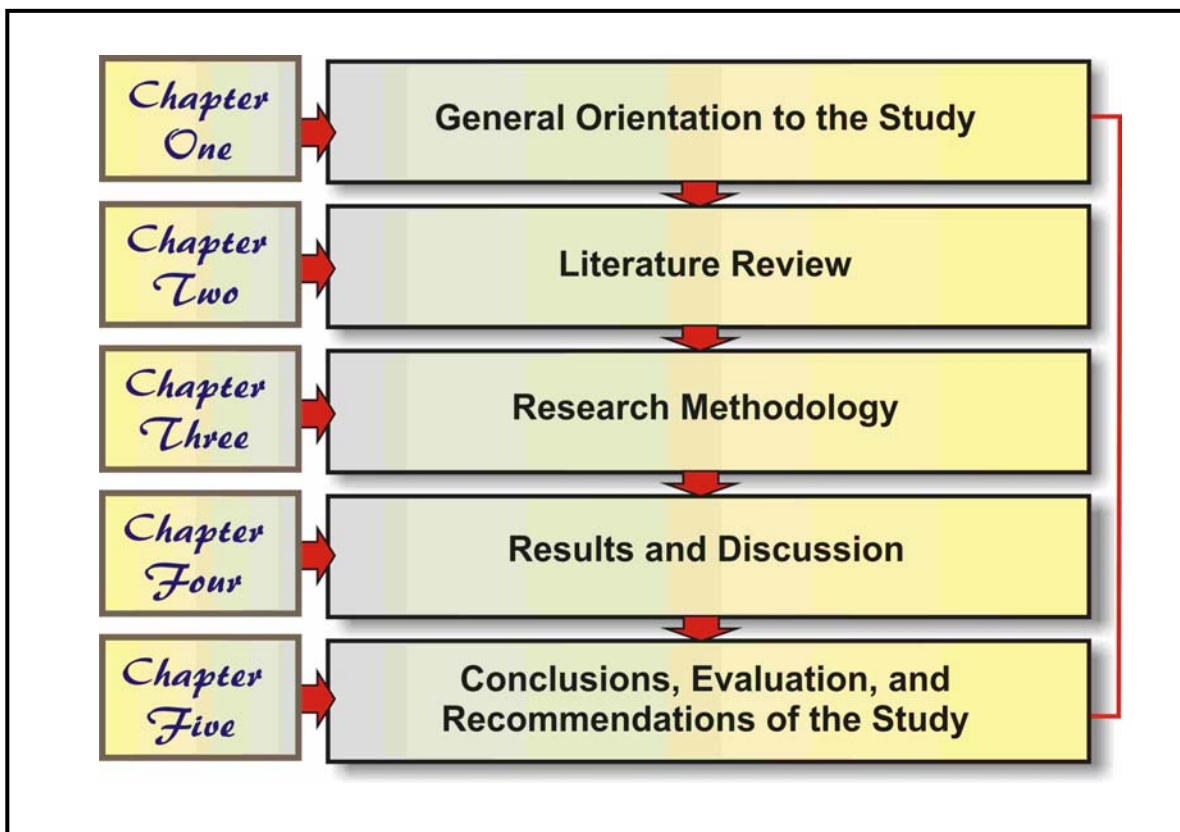


Figure 1.2: An exposition of the study

An outline of these chapters is provided below.

Chapter 1: General Orientation to the Study

In this chapter an overview of the research study is set. The posing of the research problem, stating the aim of the research, the study area, the approach to and the course of the study and the format and style of the research report are described in this chapter.

Chapter 2: Literature Review

The theoretical foundation and a thorough description of the most important concepts as contained in the research question are presented. This chapter formed the basis of the conceptual framework that embodies the main concepts of the study.

Chapter 3: Research Methodology

This chapter describes the plan according to which the research was executed. The research design, choice of participants, data collection techniques and procedures, data sources and data analysis are described in this chapter. Measurements put in place to increase the quality of the data and to curb research errors also receive attention.

Chapter 4: Results and Discussion

In this chapter a profile of the participants is presented. The respective objectives are discussed according to the findings obtained from the information supplied by research participants.

Chapter 5: Conclusions, Evaluation and Recommendations of the Study

This chapter summarises the main findings of the study. Suggestions and recommendations for future research are offered. Finally, an evaluation of the study is given in terms of its reliability and validity.

1.6 SUMMARY

This chapter provided a general overview of the study. It was important in this chapter to state the research problem and illustrate it with some reference to previous research on the acceptability and use of convenience foods by working women. The aim and objectives of the study were given and the study delimited. Finally an outline of the five chapters of the study was presented.

The next chapter will be an investigation into literature relevant to the study.

CHAPTER 2

Literature Review

2.1 INTRODUCTION

In the previous chapter the nature and extent of the study on the acceptability and use of convenience foods by working women was outlined. In this chapter the literature study is discussed in relation to the conceptual framework which binds together the important concepts of this study (see Fig. 2.1). This chapter also conceptualises and explicates the key concepts under study.

Research has shown how working women have changed in their food choices, purchases and consumption styles (e.g. Enslin, 2006; Viljoen *et al.*, 2005; Hinze *et al.*, 2004; Gcabo, 2003; Cant *et al.*, 2002; Rousseau, 2003; Bonke, 1996; Gershuny, 1994). It is interesting to note that working women are influenced by a number of factors in their choices, purchases and consumption styles of food products of which time pressure is critical. Remarkable also is the fact that these working women find themselves managing both work and home commitments within a few hours of the day (Kok, 2003; Costa *et al.*, 2001; Madill-Marshall *et al.*, 1995). Managing both work and family make it necessary for working women to use certain strategies in their decision making processes, especially, decisions on food acceptability, preparation and consumption for their own families.

Decisions regarding the acceptability, choice and use of convenience foods are the result of conscious and subconscious influences (Warwick, McIlveen & Strugnel, 1997). In a similar vein, this research investigates the acceptability and use of convenience foods by black working women employed by government in Mpumalanga.

The focus in this chapter is on three interrelated factors which influence food acceptability and use (see conceptual framework in par. 2.6, fig. 2.1): First, factors categorised as related to the food, with regards to this study, the convenience foods as well as the associated sensory attributes such as appearance, smell, taste, texture and flavour; second, factors related to the person making the choice, the working women, concentrating on their demographic characteristics, work involvement, and time pressures; and, third, food context which relates to the external factors such as the resources, the socio-cultural environment and the occasion and situation of consumption (Shepherd & Raats, 1996; Shepherd & Sparks, 1994).

2.2 CONVENIENCE FOODS

2.2.1 Convenience foods defined and described

Convenience foods refer to fully or partially prepared foods in which a significant amount of preparation time, culinary skills or energy inputs have been transferred from the home kitchen to the food processor and distributor (Candel, 2001; Costa *et al.*, 2001; Capps & Park, 1997; Bender & Bender, 1995; Baker, Hahn & Robbins, 1988; Freeland-Graves & Peckham, 1987; Capps, Tedford & Havlicek, 1985; Bender, 1982; Medved, 1981).

Convenience in this context is conceptualised as consisting of not only on saving time but also energy and the transference of culinary skills which relate to basic and complex convenience foods. The distinction between basic and complex convenience foods is that in basic convenience food only time and energy are invested, whereas in complex convenience foods culinary expertise is also factored in. It can be argued therefore that outsourcing culinary skills can be seen as ultimately leading to time and energy saving in meal preparation (Candel, 2001).

As highlighted above, both time and energy saving are part of convenience. Energy saving, however, may relate to both physical and mental energy saving. That is, consumers' perception of convenience food relates not only to physical activities but also to the thinking activities involved in meal preparation (Candel, 2001).

Kronl (1990) states that, convenience in food is generally defined as anything that saves or simplifies work, adding to a person's ease or comfort. She also contends that convenience foods are those foods that have service added to basic ingredients to reduce the amount of preparation time required in the home.

In a similar vein, De Boer, McCarthy, Cowan and Ryan (2003) defined convenience food products as items that help people to economise on time devoted to the performance of meal planning and preparation. In addition, they perceived convenience foods as all food products which have undergone secondary processing including ready meals, processed meats, pizzas, pies, savoury products, ice cream and confectionery products, dairy desserts, soups and other prepared consumer ready products.

However, this perception is similar to Tillotson (2003) who classified convenience foods according to the type of processing technology employed. A range of methods could be involved, such as canning, freezing, dehydration, chilling or chemical preserving. Alternatively, the type of food could be the criterion, like frozen and canned vegetables, cake mixes and baked products, soups, sauces and condiments, processed meats and fish, chilled and frozen dairy based products, ready-to-eat and shelf stable food products or dishes, plus many other types.

Convenience foods are also defined as foods designed to save consumers time in the kitchen and reduce costs due to spoilage and by using economies of scale. These foods require minimum preparation, typically just heating, and are packaged for a long shelf life with little loss of flavour and nutrients over time.

Despite the lack of consensus on a precise definition of convenience foods, the common element of convenience foods is that they can minimise preparation, cooking and cleaning up time. It appears that the main aim of convenience food products is to make consumers' lives easier when choosing and preparing meals (De Boer *et al.*, 2003; Kok, 2003).

For the purpose of this study, convenience foods are defined as fully or partially prepared foods in which a significant amount of preparation time, culinary skills or energy inputs, have been transferred from the home kitchen to the food processor and distributor to be packaged for a long shelf life with little loss of flavour and nutrients over a period of time.

The following convenience food categories as proposed by Kok (2003) will be operational in this study. Kok's categorisation has been found to be more sensible as it indicates which inputs have already been made by the industry and which ones are left to be done by the consumer:

Table 2.1: Convenience food categories used in the study (adapted from Kok, 2003)

Categories	Input by food industry	Product readiness	Consumers input
A	Fully prepared	ready to eat	consumed as purchased
B	Fully prepared	ready to eat	requiring only mild heating
C	Partially/fully prepared	needs additional ingredients e.g. milk or hot/boiling water or salad dressing	after mixing or cooking are ready to eat
D	Partially prepared	minimally prepared for cooking	full cooking of some or all of their components

It is important to note that the food industry has responded to the consumers' desire to spend less time in food preparation by developing convenience food products according to the above convenience food categories. For example, restaurants' and grocery stores' sales of convenience foods and "quick takeout" meals have dramatically increased since the 1980s (Senauer & Kinsey, 1996; Gofton, 1995). Many grocery stores have become "one stop" shopping locations where food consumers can purchase washed, packaged, pre-cut vegetables, pre-cooked meals and find items for a recipe of their own convenience all packed together (Gardyn, 2002).

The concept of convenience is to save consumers' time. Reducing the preparation required prior to actually consuming the food product is one form of convenience. Similarly, purchase of pre-washed, pre-cut produce such as carrots, pumpkin, potatoes and ready to eat packaged salads have increased rapidly. Although consumers are aware that they are paying more, they obviously are willing to pay for the value-added in terms of increased convenience (Enslin, 2006; Senauer & Kinsey, 1996).

With regard to future consumer behaviour in terms of convenience foods, Lewis (2007) predicts that over the coming six years (to 2013), convenience will become a standard expectation, alongside healthy ingredients, fantastic taste and sustainability. The convenience trend dates back to 1953 when the United States businessman, Gerry Thomas, first invented 'TV dinners' in a form of frozen dinners packaged in a foil tray served while watching television. This type of meal revolutionised Western eating habits and introduced convenience foods to the masses (Lewis, 2007). Fifty-four years later consumers are placing even more demands on the food industry requiring it to come up with the ultimate in convenience. Moreover, they are increasingly snubbing ready meals that are overly processed, tasteless, lacking in nutrients or full of fatty acids and additives. Lewis (2007) argues that more sophisticated, gourmet options are in demand, particularly convenience meal options developed and manufactured with authentic, exotic and

natural ingredients. This indicates that apart from the obvious advantages there are also disadvantages associated with convenience foods. The advantages and disadvantages are reported in literature as follows:

2.2.2 Advantages and disadvantages of convenience foods

The following are advantages and disadvantages of convenience foods as espoused by Jabs & Devine, 2006; Dixon, Hinde and Banwell, 2006; ACNielsen, 2002; Costa *et al.*, 2001:

Advantages of convenience foods

Convenience foods tend to be used because of:

- Time savings. Convenience foods significantly reduce the time it takes to prepare meals from scratch using raw ingredients significantly;
- Variety. Due to packaging techniques such as canning and freezing, foods are available at all times of the year;
- Healthy. Most convenience foods have a health aspect in them (health claims);
- Convenience. Convenience foods are convenient, palatable and portable,
- Shelf life. Convenience foods have a long shelf life;
- Labour saving. Labour and bulk reductions in acquisition and logistic activities;
- Kitchen inputs. Downsizing of kitchen inputs such as time, skills, energy, labour and equipment;
- Storage. Ease of storage and regeneration; and
- Food safety. Packaging and processing techniques, such as canning, freezing and irradiation, reduce spoilage and the presence of bacteria in the consumed products.

Disadvantages of convenience foods

Convenience foods tend to be criticised because:

- Typically they are manufactured from almost inedible agricultural products;
- They are typically high in dietary fat, sodium and kilojoules content;
- They are low in fruit and vegetable fibre, calcium and iron;
- The reduced time cost and nutritional content associated with these foods is specifically blamed for obesity;
- Sometimes genetically modified (GMO) foods are used;
- Sometimes an irradiation process is used;
- Preservatives are almost always used; and
- Convenience foods are normally more expensive than unprocessed foods.

Research done by Jabs and Devine (2006) revealed that consuming more convenience foods, ready prepared meals of lower nutritional value, eating fewer family meals prepared from scratch using raw ingredients at home and eating more meals away from home have negative effects on health. To counter this Lewis (2007) suggested the development and manufacturing of light bites and snacks in convenient pack formats which represent interesting innovation opportunities. These include:

- Fresh organic and natural products with “guilt-free” appeal;
- Premium products targeting “foodies” (consumers who are interested in the provenance of food, cooking, ingredients, etc) with higher quality ingredients;
- Functional and fortified variants tackling consumer health requirements such as diabetes, heart and digestive health;
- Portioning - products that can be eaten throughout the day without losing freshness. This requires a focus on packaging innovation rather than on the product itself, although the food should not lose its taste or texture quality after opening; and
- Reduced portion sizes to control kilojoules/fat intake.

Apart from the above advantages and disadvantages associated with convenience foods it needs to be taken into consideration that the sensory attributes of any food product plays an important role in the choice and acceptability thereof. The role of the sensory attributes in food choice and acceptability is briefly discussed.

2.2.3 Sensory attributes

Sensory attributes are characteristics related to the food itself such as the flavour, taste, appearance, texture, temperature, colour, odour, aroma and quality as well as the preparation methods involved as detected by consumers (Blades 2001; Hamilton, McIlveen & Strugnell, 2000; Shepherd & Sparks, 1994; McKee & Harden, 1990; Krondl & Coleman, 1988). These sensory attributes have an effect on whether a food is chosen and eaten or not.

The five senses, sight, hearing, touch, smell and taste play a major role in food choice (McKee & Harden, 1990). McKee and Harden (1990) also suggest that heat, cold, pain, thirst and fatigue are today recognised as sensations and these can also influence food choice and use. A food consumer may select fresh produce based on colour or smell, canned products based on past experiences with taste, meat based on the appearance, marbling and colour and bread based on freshness according to its squeeze-ability. Sensory properties that correspond to the characteristics of a specific food item are some of the first factors to influence food acceptability and use (Blades 2001).

Therefore, in this section it is important to discuss the sensory attributes, appearance and colour of food, its texture, taste, flavour and smell, as these attributes are critical to the consumer and influence not only the choice but also the use of foods.

2.2.3.1 Appearance and colour of the food

Consumers come into contact with food in numerous and varied ways but the appearance of the food, or its packaging, constitutes the first sensory impression of the product. Appearance includes basic sensory attributes of the food such as its colour, shape and size as well as more complex attributes such as translucency, gloss or surface texture (Imram, 1999; Cardello, 1994). In food choice situations, colour and other appearance attributes as mentioned above create the first impression encountered by consumers (Imram, 1999).

It is more than likely that the food products that are chosen for display and sale by retailers are selected for their colour and appearance attributes.

2.2.3.2 Taste, flavour and smell of the food

Raats, Daillant-Spinnler, Deliza and Macfie (1995) contend that, at the moment of food purchase, the consumer's decision making process is purely cognitive whereas the sensory properties are those detected, either from previous memory, from direct claims on the package, inferred from the images and information or from handling the product itself. Experiences from the taste of food, such as sweet, sour, bitter and salty, are stored in a person's memory and when one see a food product that tasted good to him/her before, then this triggers either a pleasant or unpleasant memory whether to select that particular food or not is made based on the retrieved memory.

The flavour of the food is important in both food choices as well as in its consumption. Consumers' preferences for a savoury or sweet flavour, will also have a bearing on their food choice and use. The smell of the food, its odours and aroma come through deliberate inhaling to ascertain whether it is unpleasant or pleasant. Foods with an unpleasant smell are usually not accepted as the smell could be a sign of something distasteful such as the food being rotten or having an unpleasant taste.

Past experience, and the environment, condition consumers to expect foods to have certain sensory attributes and deviation from the norm may deter consumers from selecting, purchasing and consuming that particular food (Raats *et al.*, 1995). The manner, in which some foods are presented, especially processed foods and ready-to-eat convenience foods, is one of the major factors influencing food acceptability and use. The individual's food preferences also influence the choice and use of food and this is determined mainly by its sensory attributes (Raats *et al.*, 1995).

A further consideration is the fact that food preferences are influenced by cultural exposure. The individual becomes familiar with the socially acceptable foods as well as the flavour and taste components of that particular cultural group to which he/she belongs. Human beings, however, accept food items as edible or inedible and establish preferences amongst foods on the basis of sensory as well as cultural characteristics (Viljoen, 1996; Raats *et al.*, 1995). It is the sensory attributes highlighted in this section that initially serve to attract consumer attention and later influence the decision on whether to buy the food product or not.

Factors such as taste, smell, appearance of the food and its packaging, information from labeling and images, attitudes, memory from previous experience, price, prestige, nutritional content, health belief and brand loyalty, have an important effect on consumer perception and subsequent acceptance and use of a food product (Ahlgren, Gustafsson & Hall, 2005; Hamilton *et al.*, 2000).

The results of a study on the consumption of the 'ready meal' (Hamilton *et al.*, 2000) showed that, in the purchase situation, consumers look primarily for sensory characteristics, closely followed by convenience and timesaving aspects. On the other hand, when it came to the consumption situation, convenience and time were more important (Ahlgren *et al.*, 2005; Hamilton *et al.*, 2000).

2.2.3.3 Texture of the food

Texture plays an important role in food choice. According to Imram (1999) the universally favoured textural characteristics of food products are:

- Crispness is seen by most consumers as being synonymous with freshness and wholesomeness.
- Tenderness is a widely accepted indicator of quality and is linked in people's minds with good nutrition.
- Smoothness is a characteristic that is soothing and pampering.
- Creaminess is associated with fattiness or oiliness and gives sensations of satiety and fullness as well as a psychological feeling of being pampered.
- Firmness suggests biting and moderate chewing and appears to be an ideal texture for many foods like fruit, vegetables, puddings and cakes.
- Juiciness is a characteristic experienced as appetising and appealing.

In the light of these descriptions, it is clear that food texture has an important effect on a consumer's perception of food (Imram, 1999; Cardello, 1994; Raats *et al.*, 1995).

In view of the discussion above on the first category of factors influencing food choice (as related to the food itself), the second factor as related to the person (working women) making the food choice is discussed in the following section.

2.3 WORKING WOMEN

Working women are women working full-time outside the home in the labour market for monetary benefits, working for about 40 hours or more in a week (Brown, 2005; Kok, 2003; Levin *et al.*, 1999; Bonke, 1996; Gofton, 1995; Madill-Marshall *et al.*, 1995; Forster & Mammen, 1992). Modern trends have shown that working women come home from their work and jobs and need to prepare meals to feed their

children and themselves. In addition, they have to do household chores, maintain relationships and find time to relax and prepare for the next day. This is unlike the earlier conceptualisation of the traditional family where parents had separate roles defined by gender with the mother as homemaker and the father as breadwinner (Jabs & Devine, 2006). Today's parents are more likely to both work outside the home (Kok, 2003; Costa *et al.*, 2001; Sloan, 1999; Senauer & Kinsey, 1996; Madill-Marshall *et al.*, 1995).

It appears that managing work and family responsibilities for working women is more challenging. For example, fulfilling multiple roles such as worker, parent, housekeeper and cook may be beneficial as far as enhancing the woman's self-esteem and social networks is concerned, but detrimental in the context of creating strain and conflict due to competing demands on time and energy (Jabs & Devine, 2006; Perry-Jenkins, Reptti & Crouter, 2000).

In order to fulfill the multiple role demands of worker and mother, women cope by using strategies and making sacrifices by decreasing personal time such as sleeping and exercising, decreasing time in employment, in housework, with children or their partners with seeking help from others as an option (Jabs & Devine, 2006). A number of working women do not have the time to prepare traditional meals and increasingly there even appears to be a lack of knowledge on how to cook. After work they want a meal to eat or, at most, to assemble at home and not the ingredients to cook (Enslin, 2006; Senauer & Kinsey, 1996). Research done by Madill-Marshall *et al.*, 1995, indicated that the number of hours worked by a woman was positively associated with expenditure on convenience foods, food away from home, child care and services purchased.

2.3.1 Working women and their demographic variables

The demographic variables of working women are based on aspects such as level of education, income level, family life cycle and family size, age, marital status and

occupation. These demographic aspects are closely linked to the working women's food consumption needs and buying behaviour (Cant *et al.*, 2002). This however, is due to the fact that working women differ regarding their demographic characteristics which make them to react differently regarding their food acceptability and use. These women also differ in their Living Standards Measurement continuum (LSM) which is discussed in par. 2.3.1.1. Working women mostly fall in LSM 6 – 10, characterised by salaried in “suitable” occupations, creditworthy and well educated individuals (Du Plessis & Rousseau, 2003). Living Standards Measure has become the most widely used marketing research tool in Southern Africa and its (LSM) weightings changes from time to time to keep with South African societal changes since the first democratic elections and as research on LSM is undertaken (see Mafu, 2007). For the purpose of this study the LSM espoused by Du Plessis and Rousseau (2003) will be operational.

2.3.1.1 Living Standards Measurement, education and income

Du Plessis and Rousseau (2003) noted the following:

- The Living Standards Measure 6, (LSM 6) comprises the adult South African population with post-matriculation education with high levels of full-time employment and an average of household income of R3 731 per month. This living standard continuum is also characterised by people between the ages 16-34 with a high usage of all financial services, extensive ownership of large appliances, above average contacts with all mass media, high vehicle ownership and increased self and home improvement. Households in this LSM spend R505 per month on food.
- The Living Standards Measure, (LSM 7) consists of people with matriculation and post-matriculation education with an average household income of about R5 495 per month. People in this living standard continuum are mostly married and employed full-time and are 35 years of age and

older. About 70% of these people own their own houses. They frequently use more sophisticated investment services. This LSM continuum is also characterised by people who own large appliances, use several luxury items and are contactable via mass media facilities. Vehicle ownership, self and home improvements are high in this living standard continuum. Households in this LSM spend R644 per month on food.

- The LSM 8 are mostly urbanised, affluent people, 35 years of age or older, with matriculation and higher educational qualifications. They are in the highest employment and home ownership levels. Many own a second home or vacation house/flat. Their average household income is about R7 407 per month. Households in this LSM spend R960 per month on food. They use sophisticated personal and luxury items and financial services, being highly exposed to mass media.
- The LSM 9 comprises urbanised people aged 35 and older, with matriculation and higher educational qualifications. The average household income is R9 743 per month. Households in this LSM spend R1 136 per month on food. They have full access to services and ownership of durables and are highly exposed to mass media.
- The LSM 10 comprises urbanised people, 35 year of age and older, with matriculation and higher education qualifications. Their average household income is R13 406 per month. They have full access to services and ownership of durables and are highly exposed to mass media. Households in this LSM spend R1 990 per month on food.

Living standards and education are closely correlated and the education level appears to drive the living standard measure continuum. The level of education of working women, for example, has been associated with income and the stage of the family life-cycle because the level of education relates to the level of stress in terms

of time pressures (Du Plessis & Rousseau, 2003). Research findings show that education is positively correlated with the consumption of purchased meals, use of pre-prepared meats and prepared baked goods (Madill-Marshall, *et al.*, 1995; Anderson, 1971).

A number of researchers (Capps & Park, 1997; Nayga, 1996; Madill-Marshall *et al.*, 1995; Yen, 1993) found that the level of education of the household manager has a positive impact on the consumption of convenience foods in the form of prepared foods and foods eaten away from home. To the contrary, Kok (2003) contends that women with higher education levels are more sceptical about convenience foods. Kok believes that women with higher education are sceptical because they are more aware of food aspects like health, good nutrition and hygiene. Assael (1992) and Schiffman and Kanuk (1997) maintain that the levels of education of consumers need to be considered as an important variable when writing about consumers and their behavioural patterns.

2.3.1.2 Family life cycle

According to Jabs and Devine (2006), families with children report more time doing housework than families without children and that time spent in housework decreases as children grow older, increasing with the number of children present in the home. Evidence from the literature reviewed indicates that a family with children and where in both parents work, experiences more time pressure than is the case with non-working parents and that the pressures are especially salient for families with preschool children (Madill-Marshall *et al.*, 1995).

In addition, the consumption of purchased meals and prepared food products like convenience foods is related to the stage of the family life cycle. For example, the highest consumption and usage of convenience foods is reported in households with children under the age of 6, and then in families with children aged 6-12, and lowest in families with children aged 12-18 (Jae; Ryu & Abdel-Ghany 2000; Madill-Marshall

et al., 1995; Anderson, 1971). Therefore the existence and ages of children in the household is highly predictive of convenience food usage.

From the above discussion, it can be inferred that the level of education, income levels and the stage in the family life cycle, could be predictive of the nature and frequency of the future use of convenience foods.

2.3.1.3 Marital status

Jabs and Devine (2006) and Kok (2003) contend that managing household and childcare responsibilities is often more difficult for single parents who often do not have someone with whom to share housework, childcare and other responsibilities. Married working women, though they have their husbands to share family responsibilities with, also experience time pressures due to work responsibilities as the husbands too are involved in work outside the home. It is likely that, besides married working women, single working women become a target market for convenience foods (Kok, 2003).

2.3.1.4 Age

The age of the household manager (working woman) has been found, through research, to play an important role in the consumption of convenience foods. According to Capps *et al.* (1985), the age of the household manager presents dominant differences in lifestyles and values. Younger, rather than the older household managers are more receptive to the increased availability of convenience foods and additional mechanical labour-saving kitchen equipment that are highly effective in reducing the amount of time spent in meal preparation (Capps *et al.*, 1985).

Research has shown that households with older managers were less likely to consume ready-to-eat meals and prepared meals than households with younger

managers. Household managers who are younger than thirty-five years of age were found to be the primary users of convenience foods and fast foods (Akbay *et al.*, 2007; Capps *et al.*, 1985). Anderson (1971), in his research identifying the convenience-oriented consumer, found that households with managers in the 25–40 year age group were the most convenience oriented.

In the study done by Akbay *et al.* (2007) on consumer characteristics influencing fast food consumption in Turkey, the results showed that the frequency of fast food consumption was significantly associated with household size, the number of children in the household, education, age, household income and employment status of the household wife. Other factors such as consumer attitudes towards the price of the food product, health concerns and children's preferences, significantly influenced the frequency of fast food consumption.

2.3.2 Work involvement

Madill-Marshall *et al.* (1995) defined work involvement as the extent to which a person identifies psychologically with work roles and the importance of work to that individual's self concept. Research done by Madill-Marshall *et al.* (1995) on working women in terms of coping strategies with household stress, found that work involvement may be a key factor explaining the variation in food consumption patterns of the working women. As a result, consumption patterns of women employed outside the home and of those who are not, differed significantly (Madill-Marshall *et al.*, 1995).

According to Madill-Marshall *et al.* (1995), it is expected that the higher the involvement with work and the longer hours one spends in employment, the more likely will be the use of convenience food products and consumer meals purchased outside the home as well as the utilisation of convenience services. In a similar vein, Verlegh and Candel (1999), in their research, found that respondents with paid jobs are more frequent users of convenience foods.

However, to the contrary, Strober and Weinberg (1980), in their research, though dated, on strategies used by working and non-working women to reduce time pressures, found that, although working women prepare fewer meals, if income and life cycle is held constant, working women and non-working women are generally similar with respect to methods of meal preparation and shopping behaviour. In a study conducted by Reilly (1982) on working wives and convenience food consumption, it was found that households of working women were not significantly greater consumers of convenience foods, nor were they more likely to own convenience durables.

Work involvement is as well associated with role overload, which has been conceptualised as the degree to which the amount of energy and time demanded of an individual as a result of the roles performed is perceived to exceed available time and energy resources (Candel, 2001; Reilly, 1982). The more a person experiences role overload, the more of a burden obligatory activities become and the higher the person's tendency to be convenience-orientated with regard to these activities, one of which could be meal preparation (Candel, 2001).

According to Madill-Marshall *et al.* (1995), role overload is a result of increased stress and decreased life satisfaction due to involvement in the labour force. It is expected that working women who experience role overload due to work time pressures will try to minimise these effects by using more convenience foods. In the study done by Madill- Marshall *et al.* (1995) on coping with household stress, role overload was positively correlated with the use of convenience foods. Candel (2001), in researching consumers' convenience orientation towards meal preparation, found that convenience orientation was positively related to role overload.

Reilly (1982) holds an opposing view as he found role overload to be a weakly positive, non-significant cause of serving convenience foods and a weakly positive, statistically significant cause of the ownership of time saving durables. He also found that working does not necessarily result in role overload. Role overload was found to

be determined by a number of factors such as the presence of children in the household, activities outside the home such as church participation, club membership and volunteer work together with participation in the labour force, might all be positively related to role overload. According to Reilly (1982), working is only one position in the position set or status of mother, wife and worker, and role overload results from the totality of demands on time and energy.

2.3.3 Time pressure

Time pressure, also referred to as ‘being time poor, time scarcity, time famine and time crunch, refers to people’s perceptions or feelings of not having enough time to do all they want or need to do in a day (Herbst & Stanton, 2007; Jabs & Devine, 2006; Zuzanek, Becker, & Peters, 1998). Feelings of time scarcity have been found, through research, to be increasing in industrialised societies and these feelings of time scarcity have been attributed to the increased prevalence of employed women and/or employed parents (Jabs & Devine, 2006; Connors *et al.*, 2001).

2.3.3.1 Time pressure and food preparation

Studies done by Sloan (1999) in consumer behaviour illustrate that women’s participation in the labour force has increased significantly. This implies that in most families in the developed countries as well as in developing countries, there is critical time pressure and role overload amongst working women as they are expected to perform at work and be mothers at home. Many working women feel “dollar rich” and “time poor” as real incomes rise, yet the demands on their limited time availability escalate (Connors *et al.*, 2001; Gofton, 1995). Researchers agree that working women today feel more time pressured with less time for leisure with family and with friends (Jabs & Devine, 2006; Kok, 2003).

In the new approach to household economics, it is accepted that the value of time affects commodity consumption. Thus, households with working wives or women

managers consume, amongst others, more time saving goods, especially convenience foods and service, than other households. The working woman substitutes time saving services for their own time (Brown, 2005; Gershuny, 1994; Bonke, 1995; Costa *et al.*, 2001; Cant, *et al.*, 2002; Rousseau, 2003).

In their research, Strober and Weinberg (1980) found that working women tended to shop less frequently than non-working women and made greater use of husbands when engaging in shopping activities. Working women tended to have an intense dislike for food shopping and cooking, and that seemed to stem primarily from time considerations (Madill-Marshall *et al.*, 1995).

Time pressures on working women are enormous because they not only work in the labour force but continue to do most of the work at home, particularly shopping and food preparation. As working women are involved in work, especially with longer hours spent in employment, there is a likelihood that they will use convenience foods (Madill-Marshall *et al.*, 1995). Gofton (1995) argues that it is not only being 'time poor' that prompts working women to use convenience foods, but also the different circumstances in which women find themselves need to be taken into consideration. For instance, women who are single parents, or live alone, or have to cope with a large family, or have a husband and a job, have specific demands placed on them with regard to food demand, eating patterns, how and when to shop, what they buy and how they provide food for themselves and their families. As the value of women's time increases for a variety of reasons, according to their circumstances, the use of convenience food rises, and the amount of fast food and food eaten away from home rises. Gofton (1995), in his research, found that, if the primary meal preparer was in paid employment, her rate of pay was directly and positively related to the rate of consumption of complex and manufactured convenience foods.

Kok (2003) contends that working women have a mission to simplify their lives in order to spend more quality time at home with their families and with friends. Consequently, the emphasis will increasingly be placed on convenience products to

enable the working woman to serve meals to her household within a shorter period of time. Contrary to this, Beck (2007) a researcher at UCLA in Los Angeles, found that people spend quite a fair amount of time cooking, even if they incorporate a substantial amount of convenience foods. According to Beck (2007), it was surprising that the households studied did not get dinner on the table any faster in households that favoured convenience foods. Meal preparation in those households took an average of 52 minutes in total time. The difference in the total amount of time expended was not statistically significant between meals involving extensive use of convenience foods (with such foods making up 50 percent or more of a meal) and more limited use of such items (between 20 and more percent). Households saved when it came to the amount of hands-on time spent preparing dishes. Households with an extensive reliance on convenience foods saved an average of 10 to 20 minutes over households with more limited reliance on convenience foods. Home cooked meals were found to require an average of 34 minutes of hands-on time (Beck, 2007).

In their research, Capps and Park (1997) found that households with stringent time constraints are more likely to purchase prepared meals and other types of convenience food products. Households of this nature are likely to include dual-income households and single working parent households.

2.3.3.2 Food product design and development for the time poor consumers

According to Sloan (1999) cooking at home is seen as a chore by most working women, and meal preparation is considered a very time consuming activity. To respond to consumer's and working women's desire for time relief, food manufacturers developed convenience foods, such as pre-prepared food products as food or dinner solutions or time saving dishes. Examples of these are fully prepared take away meals; frozen pizzas; lasagna; pre-cut frozen vegetables; pre-cut, cleaned ready to cook vegetable items; pre-cut cleaned and bagged salads; frozen side dishes; frozen main dishes; frozen complete dinners; crumbed and

frozen seafood; pre-cooked meat-poultry or other main dishes; pre-cut marinated or pre-seasoned meat or poultry ready to cook; casseroles; stir-fries; pasta, etc. (Jabs & Devine, 2006; Tillotson, 2003; Kok, 2003; Reed *et al.*, 2003; Acielsen, 2002; Halfwassen, 2000; Sloan, 1999; Capps & Park, 1997). It appears that the food system has shifted from being producer-driven to being consumer-driven. This means that the power in the system is at the retail end, because retailers are the ones who receive the information about consumers' preferences first and then transmit the information to food product designers and manufacturers who then respond to the consumers' needs and desires (Senauer & Kinsey, 1996).

Dwyer (2000) predicted that marketing after the year 2005 will demand an approach that responds to changing consumers, new technology and a vastly different competitive landscape. Time scarcity can be seen as a recently emerged cohort influence on food choice (Jabs & Devine, 2006). Food companies and retailers are all cognisant of the rapidly changing life-styles and changing consumer preferences of their time-pressed customers. Fast-moving consumer trends mean changes in food products, packaging and other parts of the total product offering, of which the industry is well aware. Trying to cope by offering convenience foods and other food products of good quality relevant to the needs and requirements of consumers, especially working women, is indeed challenging (Halfwassen, 2000; Imram, 1999; Senauer & Kinsey, 1996).

There is a common assertion that quality control in terms of ISO 9000 (International Standards of Organisations) has become important throughout the entire food supply system. ISO 9000 is an international quality control process widely used in the global village. With the growth in ready-to-eat sales, the importance of food safety and health standards increases greatly as food is often held in very perishable forms and handled by third parties just prior to eating (Brown, 2005; Senauer & Kinsey, 1996). According to Senauer and Kinsey (1996), food processors and even retailers are adopting the Hazard Analysis Critical Control Points (HACCP) to ensure quality and safety.

According to Enslin (2006), there are a number of convenience food retailers in the developed economies of the world as well as in the developing countries. For example, in South Africa, supermarket chains such as Pick n' Pay, Woolworths, Shoprite Checkers and Spar, to mention but a few. There is a price advantage in buying convenience foods in supermarkets such as these. Buying convenience foods is cheaper than buying all the ingredients and the preparing a meal from scratch. Moreover, it saves time, human energy and electricity and there is no waste. South African consumers too are becoming accustomed to the convenience that good, affordable ready-to-eat meals or ready ingredients afford them (Enslin, 2006).

That working women are food consumers seeking convenience in meal preparation is a key assumption in this study. In response, food manufacturers and marketers are addressing this by developing food products that reduce preparation time, such as 'heat-and-eat' meals, that allow rushed consumers especially working women, to spend less time cooking. About 44% of weekday meals are prepared in 30 minutes or less, and consumers would like to cut down that preparation time still further. Any product that eliminates cooking or cleaning-up chores, while allowing home food providers to feel they are still involved in meal preparation is likely have enormous appeal (Enslin, 2006; Brown, 2005).

In a similar vein Hollingsworth (1997) argues that, due to time constraints, most working women do not know at about 4 pm of a weekday what they will prepare for supper but expect to spend only about 15 to 30 minutes with the preparation, cooking, eating and cleaning up. Very few consumers, that is, about 10% plan meals more than one day in advance, a larger percentage of about 70%, do not know what they are going to have for dinner within four hours of the meal (Brody & Lord, 2000; Sloan, 1999; Hollingsworth, 1997). Time is an important component of convenience. Working women see time as a commodity to be spent or saved. Weighing the value of convenience in terms of time in negotiation with other values, less than an hour to prepare food is really what it has to be (Candel, 2001; Bock, Read, Bruhn, Auld,

Gabel, Lauritzen, Lee, McNulty, Medeiros, Mewman, Nitzke, Ortiz, Schutz & Sheehan, 1998). Gofton (1995) contends that working women have no time to bake a cake or prepare a meal from scratch. So she feeds her family on deep frozen micro-waved convenience foods or some other type of convenience food.

Consumers in the industrialised economies of the world, as well as in the developing countries, are to be ready, willing and able to pay for partially or fully prepared convenience foods (Enslin, 2006; Brown, 2005). Working women are clearly recognizing the value of convenience foods as food preparation solutions. This view is also supported by a study done by Kinsey (1997) which predicted that by the year 2005, 50 – 55% of all food dollars will be spent on convenience foods and food away from home. It seems as though he has been proven right!

Convenience foods are perceived as food products that help working women to economise on the time devoted to the performance of meal planning and preparation, thus a good choice for time-pressed consumers particularly working women.

According to Jabs and Devine (2006), use of microwave energy has further changed the cooking of food and reduced people's need to plan ahead for meals. For example, with a microwave oven, if a person forgets to remove the frozen meat from the freezer, she can thaw it in the microwave oven within a few minutes, compared to the hours it would take to thaw at room temperature, previously the normal procedure. The production of time-saving food preparation equipment, such as microwave ovens, rice cookers and bread machines, and the increased availability of convenience foods and ready prepared meals were industry's response to consumers' desires to prepare food at home with limited time and effort (Jabs & Devine, 2006; Gofton, 1995).

From the above discussion we looked at the person making the food choice as a factor influencing food choice. In the following section food context as the third factor

will be briefly discussed, taking into consideration the resources available, socio-cultural environment and the situation and occasion under which the chosen food products are consumed.

2.4 FOOD CONTEXT AND CONVENIENCE FOODS

Food context relates to the external factors, such as resources and socio-cultural environment of the choice of setting and specific food supply factors in a specific environment. The concept embodies a number of issues such as the different types of foods, food sources and the availability of foods in the food system, including seasonal or market factors as well as the occasion and situation under which food products are selected and consumed (Ahlgren *et al.*, 2005). Food context as a factor influencing food choice and acceptability is closely related to the construct of a social framework (Furst, Connors, Bisogni, Sobal & Falk, 1996). Food context provides the environment for food choice and acceptability that occurs in specific behaviour settings to which food is supplied by the larger societal food system. The context is also linked to a specific meal for which the food is required, whether it is served as main meal for a household during the week or weekend or a main meal to serve guests for lunch or dinner (Ahlgren *et al.*, 2005; Kok, 2003).

2.4.1 Resources

Resources include food availability, price, income, household equipment, especially cooking equipment and appliances, space, skills and knowledge of foods and food preparation skills of the food purchaser and preparer (Jabs & Devine, 2006; Furst *et al.*, 1996; Madill-Marshall *et al.*, 1995). These resources are considered as having an influence on food choice, acceptability and use (Madill-Marshall *et al.*, 1995).

According to Furst *et al.* (1996) the resources available to people making food choices are influential components of the decision making process for food choice, acceptability and use. Resources may vary from tangible resources such as food

availability, money income, equipment and space as well as intangible resources in the form of skills, knowledge and time. Such resources are perceived as available or unavailable depending on the individual's outlook and situation. These perceptions demarcate the boundaries in food choice, acceptability and utilisation situations (Jabs & Devine, 2006; Furst *et al.*, 1996; Madill-Marshall *et al.*, 1995).

A given food context could offer expanded or constrained choice and acceptability possibilities or establish a tone or ambience that becomes part of the food choice and acceptability process. Furst *et al.* (1996) contend that some people allow food context to have a very important influence on their food choices by being sensitive to issues of availability or price reductions, whilst others are less influenced in their food choices by these contextual factors.

2.4.1.1 Tangible resources

- **Economic factors, food availability and equipment**

Economic factors have a major influence on food availability because markets act to either control the supply of food directly through the management of food prices by the producers, or governments, or indirectly by the interplay of supply and demand (Blades, 2001; Fieldhouse, 1995; Parraga, 1990). Food availability and food price as well as the means to purchase the food are therefore powerful determinants of food choice, acceptability and use. People usually eat what is available and affordable or cheap. Economic factors are always modulated by cultural factors, which define what is seen as proper or acceptable foods (Rozin, 1996; Southgate, 1996; McCorkindale, 1992; Johns & Kuhnlein, 1990). Food availability is therefore, a major factor affecting the individual's food choice and acceptability decision.

Money is perceived as an important tangible resource because its degree of ease of access affects the scope and nature of food choice decisions. With money available, food consumers can indulge in a wide choice of foods but without money the choice

could be very limited. Kok (2003) saw a direct link between income and the buying power for convenience foods. What is remarkable is the fact that money can have a bearing on the choice of convenience foods that are normally more expensive than unprocessed foods. Kok (2003) contends that research results regarding the influence of income on the choice of convenience food are contradictory. Some researchers, for example, Reilly (1982) could not find any direct relation between the choice of convenience foods and income while Jae *et al.* (2000) and Blaylock, Smallwood, Kassel, Variyam and Aldrick (1999) found that income has a connection with the choice of convenience foods in the sense that a higher income enlarges the consumer's chance of purchasing convenience food.

Household equipment and appliances also hold a connection with economic status. Wealthier households can be well equipped with appliances like microwave ovens, dishwashers, food processors etc. as opposed to households in which the woman is not working and can only afford basic equipment (Brown, 2005; Kok, 2003; Gofton, 1995). Capps and Park (1997), in their research, found that the availability of a microwave oven in the household increased the probability of consuming prepared meals.

Other tangible resources affecting food choice were found through research by Furst *et al.* (1996) as being the available and appropriate storage space or a place in the household to keep the goods purchased. For example, a household with plenty of storage space such as refrigerators and enough disposable income will choose a wide variety of convenience foods.

2.4.1.2 Intangible resources

- **Skills and knowledge**

Intangible resources that influence the choice of food for convenience have been found to be the nature of the skills and knowledge of the person making the decision

(Furst *et al.*, 1996). Skills and knowledge concerning the preparation, storage, cooking and serving methods of the food item have a marked effect on food choice, acceptability and utilisation (Furst *et al.*, 1996). A person with the knowledge of food will be able to select from a wide range of food products. A person with good cooking skills will use a variety of cooking methods when preparing the food.

2.4.2 Socio-cultural environment aspects

The socio-cultural environment refers to the social, economic and cultural factors that guide food choice, acceptability and use (Ahlgren *et al.*, 2005). Cultural information and attitudes concerning food are communicated early in life and, because they relate to basic biological needs, can remain strong for those who fully participate in a particular culture. Food is a powerful cultural medium, which symbolises important relationships amongst people and social institutions. Such attitudes persist throughout individuals' lives and are transmitted from one generation to another (Verbeke & Lopez, 2005; Bryant, De Walt, Courtney & Schwartz, 2003; Johns & Kuhnlein, 1990; Shepherd 1987). Cultural information is likely to be a predictor of an individual's food choice behaviour and a possible tool for understanding how to initiate changes in behaviour that will improve food selection for the purpose of improving the individual's nutritional status.

Culture can be defined as the sum total of learned beliefs, values and customs which serve to regulate behaviour of members of a particular society. It includes factors such as beliefs, knowledge, laws, food customs and habits, work patterns, products and other artifacts that give a society its distinct identity (Reed *et al.*, 2003; Bryant *et al.*, 2003). This means that the foods people choose, methods of preparation, methods of cooking, methods of eating, the number of meals per day, time of eating during the day as well as the size of portions eaten, make up the food-ways or food habits of people (Bryant *et al.*, 2003; Fieldhouse, 1995; De Garine, 1972). It is an important assumption that culture is a major determinant of what foods people

accept and use (Reed *et al.*, 2003; Opere-Obisaw, Fianu & Awadzi, 2000; Rozin, 1996; De Garine, 1972).

Based on the above assumption, food choice, acceptance and use are culturally determined, that is, the individual's cultural background and orientation as well as characteristics and perceptions will ultimately determine what his/her food choices or dietary patterns will be. The socio-cultural or behavioural environment including relations, ethnicity, economics as well as socio-cultural norms determine the specific foods that will be chosen and used from the variety of foods available (Reed *et al.*, 2003 & Bryant *et al.*, 2003).

The socio-cultural environment dictates food choices that are deemed acceptable to a particular social group to which an individual belongs. Food both reflects the social system and contributes to it. The individual's values, attitudes, beliefs and knowledge components help him/her to choose food from among those that are available and culturally acceptable. Access to food allows a person the opportunity to taste, evaluate and accept or reject the food. General developments in society are mirrored in food choices and use (Verbeke & Lopez, 2005; Bryant *et al.*, 2003; Whit, 1993; Sims, 1981). Rozin (1996) confirms the view of other social researchers that the act of eating is usually overtly social and the context of eating is invariably social and so is food choice.

The perception that cultural groups exhibit food practices that relate to their value systems is well documented (Bryant *et al.*, 2003; Furst *et al.*, 1996; Parraga, 1990). Values determine what is desirable and undesirable as food and which foods are held in high esteem. It appears that values are social products that have been internalised by individuals through the process of socialisation. Through food-associated habits, an individual can project a desired image, an image that is consistent with that individual's personal image and cultural standing (Parraga, 1990).

Bryant *et al.* (2003) and Parraga (1990) agree that customs or norms are cultural variables acquired by individuals as members of social groups and affect food choice. Individuals within a particular culture respond to approved behavioural pressures by selecting from among the available foods those that are culturally acceptable. Each cultural group passes on its food patterns or behaviours through socialisation thereby transmitting that particular food pattern to succeeding generations. Seemingly food consumption is thus a product of a group's food lore and its present environment. The classification of foods for example, as meals, snacks and company meals and which foods are suitable for which meals are taught to children, when the children become adults they teach the patterns to their children thus passing it on and on to new generations.

The symbolic or ritual aspect of food is often of primary importance to food selection and use. A food would be refused if its significance makes it unacceptable to the eater, on the other hand, a food can be craved, sought after, and dreamed about if its symbolic significance is positive. Wright, Nancarrow and Kwok (2001) and Parraga (1990) argue that there is no other object or substance as important as food in fostering social relationships as well as in maintaining contacts with others.

According to Furst *at al.* (1996) when making food choices people are sometimes influenced by the composition and the dynamics of their social framework, which sometimes raises issues of conflicting priorities including power issues, interpersonal relationships, social roles and meanings.

Bryant *et al.* (2003) and Rozin (1996) assert that people can only choose and eat from what is available. If the environment or culture limits access to food, there is no escape from this constraint. Cultural factors thus restrict availability in a number of ways. They co-determine, together with environmental and economic factors, what is grown or raised and what is imported. Traditions often determine appropriate portion sizes and hence appropriate packaging to accommodate this specification will be necessary and have a bearing on food choice (Wright, Nancarrow & Kwok, 2001).

The value of managing relationships for people making food choices in situations where others' preferences and needs are factors ought to be taken care of and considered. Such values are influenced by personal and cultural ideals. Managing relationships appears to be an important issue for people concerned with maintaining harmony in their households by anticipating, addressing and accommodating conflicts over food choice (Furst *et al.*, 1996). For example, the food provisioner's role is to negotiate with all the members of the family on their food choices so as to acquire foods that will meet the wants and inclinations of each and every member of the household.

Socio-cultural change effected by migration, urbanisation, industrialisation, education and acculturation processes that lead to changing life-styles, impacts significantly on food acceptability and use (Verbeke & Lopez, 2005; De Boer *et al.*, 2003). As the life-styles of individuals change, food product designers and developers tend to engage in continuous research regarding food trends in order to develop food products to suit the consumers' life-style, needs and desires (Brody & Lord, 2000).

Evidence from relevant literature sources indicates that factors such as general and convenience food-related life-styles and beliefs about convenience food can affect motivation for the acceptance and use of convenience foods (De Boer *et al.*, 2003). The food related life styles are now discussed.

2.4.2.1 General food related life-styles

The general food related life-style model as espoused by De Boer *et al.* (2003) explain behaviour toward food purchase through examining the food related life-style of an individual by looking at the following:

- ✓ **Shopping behaviour** ... Shopping behaviour seeks to determine how consumers shop for food, by observing whether they deliberate in making a purchase decision through the product information and price. Shopping behaviour also tries to discover if the consumer enjoys the whole shopping experience and if the opinions of others aid them to make a purchase. It also tries to find out if the consumer is an organised shopper who makes shopping lists.
- ✓ **Meal preparation methods** ... Meal preparation methods relate to the time taken to prepare a meal, perhaps the consumer is more convenience oriented and does not have any interest in cooking. Meal preparation methods also determine if cooking is a social event involving all the family or if cooking is solely the woman's responsibility.
- ✓ **Purchasing motives** ... Purchasing motives tries to discover what desired consequences are expected from cooking and eating. Some food consumers seem to not like changing and feel secure in eating foods that are familiar to them. Other consumers derive self-fulfillment from cooking as well as being praised for their delicious meals. Purchasing motives also seeks to discover whether consumers believe that sharing a meal assists in developing social relationships.
- ✓ **Quality** ... Quality aspects relate to a product's benefits such as health, taste, organic origin, quality and freshness. It also includes novelty, which tries to establish whether the consumer enjoys trying new foods or not.
- ✓ **Consumption situations** ... Consumption situations refer to whether the consumers have set meals or if they eat a number of small snacks during the day instead. This element is said to refer to consumers' social eating habits such whether sharing a meal is an important part of their social lives or not.

The food-related lifestyle determinants documented here have been identified by a number of researchers as being important when considering overall food acceptance patterns. Furthermore, it is most likely that they will also influence the purchase of convenience foods. However more convenience food-related lifestyle issues and beliefs about convenience food should also be considered when explaining specific purchase behaviour in relation to convenience foods (De Boer *et al.*, 2003; Brody & Lord, 2000; Graf & Saguy, 1991).

2.4.2.2 Convenience food-related lifestyle issues

According to Brody and Lord (2000) and Graf and Saguy (1991), changing consumer needs have led to a rapid growth of convenience food provision in recent years. These changing consumers needs have brought about major macro-economic changes. Increased female participation in the workforce, rising incomes and general economic growth has resulted in many 'cash rich, time poor' consumers.

In most countries, between 1986 and 1996, the number of dual-earner families has been reported as having increased dramatically (Senauer, Asp & Kinsey, 1993). Families with working women are busy families with somewhat larger disposable money incomes. An implication of this observation is its association with the noted increase in the use of convenience foods. Due to the lack of time in families with working wives, mealtimes have become far less structured, more individualistic and there is a notable decline in the number of families having meals together (De Boer *et al.*, 2003).

Sloan (1999) draws attention to the increase in the number and variety of places where food is available and the more impulsive and impatient attitudes of consumers. He suggests these developments are driving a move towards more informal dining and a decline in the traditional fixed meal times. The trend of

being away from the dining table, towards watching television while eating, is also on the increase.

Working women are, to a greater extent, intensely looking for convenience in their consumption patterns. Even though they are more interested in convenience, health is also important but not excluding flavour. Working women want variety, information and new eating experiences. They also want access to novel and interesting foods that are fresh, convenient and tasty. It is, however, not surprising that growing interest is being shown by new food product developers in developing food products that can quickly and conveniently replace home-made meals. Convenience foods bring more choice for the hurried consumer who still likes to eat a good meal, thus offering a good business opportunity for food product developers, service and retail providers alike (Sloan, 1999).

In a study carried out by Madill-Marshall *et al.* (1995) examining how the level of usage of a variety of convenience food products impacts on stress and life satisfaction, a positive relationship was found between perceived stress and the use of or consumption of prepared dinners and also prepared items used in cooking. Life satisfaction was found to have a negative relationship with most types of convenience foods, except for meals purchased outside the home.

In De Boer *et al.* (2003), Cronin, in an Irish study, reported a positive relationship between higher levels of perceived stress and use of prepared dinners and meal centres while life satisfaction had a negative relationship with the increased use of convenience food products, a similar finding to that of the Madill-Marshall *et al.* (1995) study.

Many consumers, according Senauer *et al.* (1993), lack cooking skills and frequently opt for convenience food instead of preparing a meal from scratch. It is, however, reiterated, that time pressures, stress, mealtime breakdown,

accommodating individuality and the lack of skills and interest in preparing and cooking meals could all be important motivators for the purchase of convenience foods.

2.4.2.3 Beliefs about convenience foods

De Boer *et al.* (2003) identified three beliefs about convenience foods as potential determinants for the purchase of convenience foods. These are:-

- The perceived value for money aspect of convenience foods,
- The perceived health value of convenience foods and
- The perceived time saving element of convenience foods.

Concerning the perceived value for money of convenience foods consumers assess price in relation to the value for money a product gives. Consumers may not only view price as a financial sacrifice but also as an indicator of quality.

With regard to the health value of convenience food, De Boer *et al.* (2003) found that health is one of the most important driving forces behind new food and beverage product development. Health claims appear on more products than ever before as consumers nowadays demand foods that are not only more convenient but are healthier as well. The views individuals have about particular foods effects their food choice. For example, people who believe that liver, red wine and dark green leafy vegetables are good for the blood, will tend to choose those foods for 'good health'. Foods believed to be bad for health are usually not chosen. Thus beliefs about food are likely to be a predictor of food choice, acceptability and use.

2.4.3 Situation or occasion

According to Marshall and Bell (2002) meal occasion and situation refers to certain eating occasions, such as breakfast, lunch, and dinner and snack time during the

week or over the weekend. These meal occasions involve a number of different foods, combined and presented in a particular way that is both familiar and meaningful to the participants who could be the members of the family or guests. The concept of a meal frequently displays cultural variation. Marshall and Bell (2002) contend that it is important to recognise that meals are highly structured events that follow a series of implicit rules about where, when and in what sequence particular foods could be served. Ahlgren *et al.* (2005) and Assael (1992) maintain that consumption behaviour is better understood against the background of a specific occasion or situation as this plays an important role regarding the perception and choice of food products to be served on a particular occasion or situation.

In the literature reviewed, frequent reference was made to the fact that working women experience more time pressure during the week, therefore the choice, acceptance and use of convenience foods becomes a major consideration. Weekends are seen as time to relax and as little time as possible may be used in meal preparation, therefore more use is made of convenience foods (Kok, 2003).

Verlegh and Candel (1999) in their research found that convenience foods are not always a popular choice for guests. This can probably be because little personal attention is given to preparing the meal when using convenience foods and this might send a negative message to the guests. They also aver that the intention to consume convenience foods differed significantly between situations like, 'dinner alone', 'dinner with family' and 'dinner with friends'. Senauer (2001) states that the masses in every society, especially in the Western countries as typified by Europe, have used food to denote special occasions such as weddings and religious celebrations and in expressing higher motives, such as love, friendship and affiliation. The use of convenience foods is also seen as a means of gaining status (Senauer, 2001).

In a study on the impact of the meal situation on the consumption of ready prepared meals, the respondents ranked dinner at home, lunch at work, lunch at home and

dinner at work in order of frequency. Other meal situations reported in the research were vacation and holidays in a cabin and also eating in the middle of the night at home in front of the computer or television set. When asked about company when eating, about 48% respondents reported that they ate ready meals alone, and 52% were classified as social eaters as they ate ready meals in the company of another person, colleagues or partner (Ahlgren *et al.*, 2005).

2.5 ACCEPTABILITY AND USE OF CONVENIENCE FOODS

Convenience food acceptance can be defined as the results of sensory attributes in terms of past experiences like appearance, taste, smell, texture and other positive attributes which are encountered by an individual. If the sensory attributes of the food refer to the way in which the individual learnt what to expect as psychologically and physiologically acceptable, expectations will be confirmed and the eating experience be accepted and scarcely noticed. If however, the sensory attributes are not felt as anticipated, disconfirmation of expectations will be expressed by focusing on criticism and the food item rejected. Therefore, food acceptance can be treated as perceptual and evaluative construct categorised as a feeling, emotion or mood with a defining pleasant or unpleasant character. Food acceptance can therefore be measured in behavioural terms that include most prominently its choice or purchase behaviour and intake and consumption measures as its primary index (Cardello, 1996).

Research has shown that food acceptability and use is influenced by affective and physiological, as well as cognitive and psychological attributes (Letarte, Dube & Troche, 1997) as discussed in the sections that follow.

2.5.1 Affective or physiological attributes

Food acceptance and use is affected by affective consequences that contribute to food likes and dislikes. Likes originate from a positive view of nutritional value and

dislikes from negative physiological responses, in particular, the occurrence of nausea. Functional aspects, such as flexibility and preparation, are the second most important reasons for food likes, while having almost no influence on dislikes (Tillotson, 2003; Letarte *et al.*, 1997).

2.5.2 Cognitive or psychological attributes

Food cognition refers to how people think about food, how they conceptualise, select and evaluate the foods they consume. In food cognitive studies, respondents rates foods or food products according to their perceived pleasure, taste, health and convenience values. Food acceptance and use is also influenced by psychological and cognitive aspects such as memories of consumption contexts that contribute to food likes and dislikes (Letarte *et al.*, 1997; Peters, Rappoport, Huff-Corzine, Nelsen & Downey, 1994). In a study on food preferences in daily life it was found that the three factors, pleasure, health and convenience formed the basis of a model that facilitated generalisation about everyday food preferences and acceptance. This three-factor model proved to be an effective tool for the prediction of everyday food preferences when including a cost factor (Peters *et al.*, 1994)

2.6 CONCEPTUAL FRAMEWORK

From this literature review the following conceptual framework (Figure 2.1) was developed to portray the constructs, convenience foods, working women and food context, the main concepts of the study and to show how they interrelate to influence the acceptability and use of convenience foods.

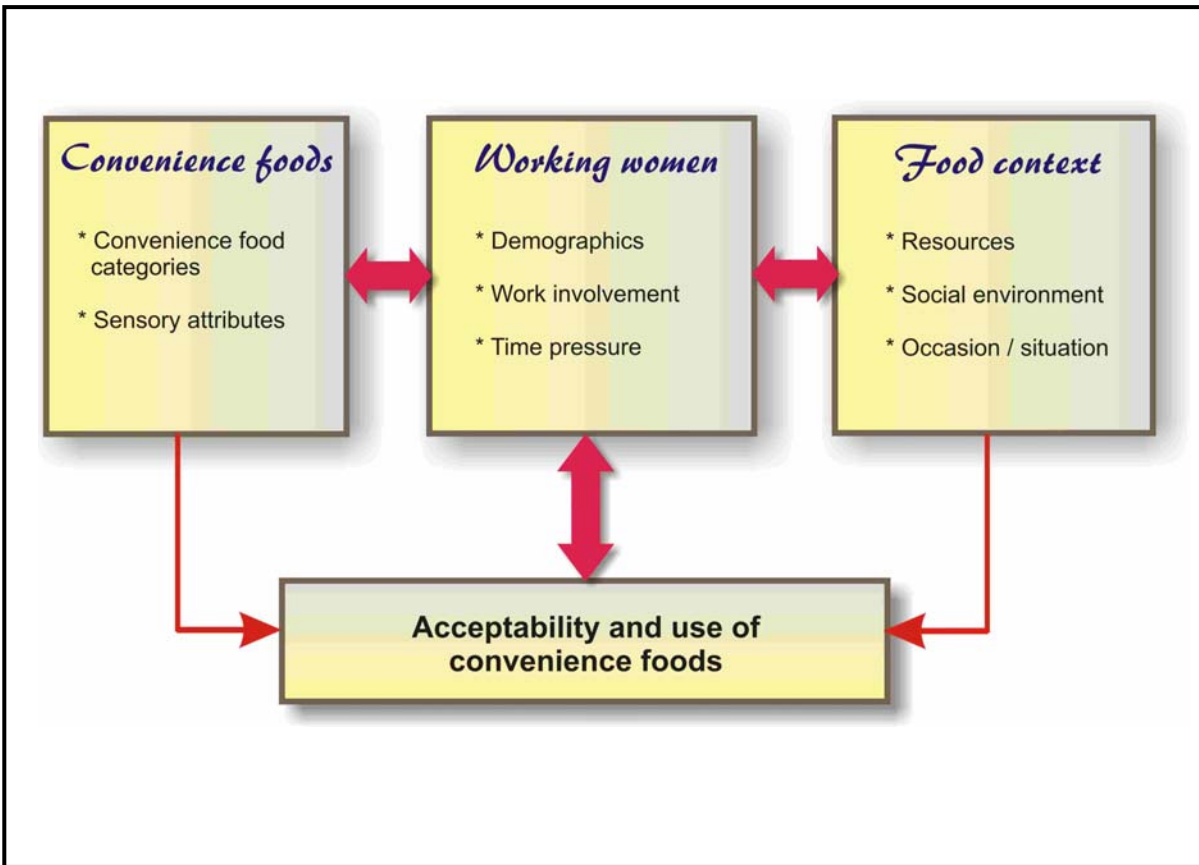


Figure 2.1: Conceptual framework

As illustrated in the conceptual framework (Figure 2.1), it is remarkable that the acceptability and use of convenience foods is linked to the product (convenience food), the person (working women) and the context (food/resources).

2.7 SUMMARY

In this chapter the use of convenience foods by working women was discussed. The literature study revealed that a person's acceptance and use of food reflects the outcome of a relationship between the food and the person. It depends on the nature of the food item, the status of the person and the circumstances of the particular eating context which involves dynamic processes that may change from time to time.

From the literature surveyed, it became clear that convenience foods have to be a useable commodity on the market, available for selection. In addition, convenience foods have to be accessible. The use of food and food products is seen to be governed by having disposable money on hand, by time constraints, by the knowledge and skills of the consumer as well as the facilities that can be used for storage and preparation. The chapter also presented the conceptual framework that binds together all the main concepts that guided this research.

The next chapter discusses the methodology of the study.

CHAPTER 3

Research Methodology

3.1 INTRODUCTION

The purpose of this chapter is to focus on the methodology of the study and the plan according to which the research was executed. The outline of this chapter includes the objectives of the study, delimitations of the study, the type of research design and related methodology i.e. tools and procedures which included the population of the study, sampling procedure and sample size, conceptualisation of the main concepts, operationalisation, data collection techniques and data analysis techniques of the study.

3.2 RESEARCH OBJECTIVES

For every research study objectives should be stated and delimitations determined to set the boundaries for the specific research study as well as to indicate what will specifically be investigated. From the problem statement, namely, “what is the acceptability and use of convenience foods of black women employed by government in Mpumalanga”, the following objectives were set for the research study. For objectives 3 and 4 hypotheses were formulated.

Objective 1: To identify and determine the frequency with which convenience food products in the four convenience food categories are used by black women employed by government in Mpumalanga

Objective 2: To determine which sensory attributes contribute to the choice, acceptance and use of convenience foods by black women employed by

government in Mpumalanga

Objective 3: To establish which resources have an influence on the use of convenience foods by black working women in Mpumalanga

Null-hypothesis: There is no relationship between the resource, money, spent on food and the use of convenience foods

Alternative hypothesis: There is a significant relationship between the resource, money spent on food and the use of convenience foods

Objective 4: To establish the influence that the socio-cultural environment has on the use of convenience foods by black working women in Mpumalanga

Null-hypothesis: There is no relationship between lack of time (as an element of the social environment) to prepare meals from scratch and the use of convenience food

Alternative hypothesis: There is a significant relationship between lack of time (as an element of the social environment) to prepare meals from scratch and the use of convenience foods

Objective 5: To establish the influence that the occasion and situation have on the use of convenience foods by black working women in Mpumalanga

Objective 6: To determine which convenience food outlets black working women use for convenience food purchase in Mpumalanga

3.3 DELIMITATIONS OF THE STUDY

- The study focused only on black women working at the Government Boulevard Complex in Mpumalanga.

- The study focused exclusively on convenience food items from four convenience food categories.
- The study did not focus on the nutrient value and nutritional content of convenience foods, but on the acceptability and frequency of their use.
- The study did not focus on the nutritional knowledge of the respondents (knowledge of the food groups and the nutrients contained), but on the food items they use in four convenience food categories.
- The study did not focus on the cultural eating patterns of the participants.

3.4 RESEARCH DESIGN

In this study the researcher aimed at exploring and gathering ideas and insight on the acceptability and use of convenience foods by black women employed by government in Mpumalanga as well as on determining the frequency with which black working women use convenience food products from four convenience food categories (see par.2.2). The study was therefore exploratory and descriptive in nature.

An exploratory research study is undertaken for various reasons. Firstly, it is done when a researcher examines a new interest or when the subject of the study itself is relatively new. Secondly, to satisfy the researcher's curiosity and desire for better understanding of the research field, and thirdly, to explicate the central concepts and constructs of a study (Churchill & Lacobucci, 2002; Babbie & Mouton, 2001). This study was also descriptive in nature as it described the working women's behaviour towards their acceptability and use of convenience foods and how they are influenced by resources, the socio-cultural environment and occasion or situation in their choice, acceptance and use of convenience foods.

A quantitative research design and survey research techniques using structured questionnaires, with open and closed-ended questions were used to gather information on the acceptability and use of convenience foods by black women employed by government in Mpumalanga.

This study is classified as an empirical study as the research problem was solved by collecting new data and by analysing existing data. Primary empirical data together with secondary empirical data were used in this study.

The structured questionnaire (Appendix A) focused on achieving the objectives of the study and towards solving the research problem. An observation checklist (Appendix B) in terms of the availability of convenience foods from the four convenience food categories was also used for triangulation purposes.

The collected data was quantified by using numbers and percentages as the quantitative research approach and the descriptive research design were important (Babbie & Mouton, 2001). This was made possible by making use of descriptive statistics as a method to describe and explain the frequency distribution of variables and the discrepancy between the degree of importance of the sensory attributes and the influences of resources, socio-cultural environment and occasion or situation in the acceptability and use of convenience foods.

This research was cross-sectional in nature as data was collected in a continuous period of time, the month time of December 2006. Exploratory and descriptive studies are often cross-sectional in nature (Babbie & Mouton, 2001).

3.5 POPULATION AND SAMPLING

3.5.1 Unit of analysis and its characteristics

The unit of analysis in this study comprised the black women employed by government in the Mpumalanga Province. Because of the nature of the study, the unit of analysis was derived from the population of women employed by government working at the Government Boulevard Complex. People working at the government complex represent the entire Mpumalanga Province as they come from the three

regions forming Mpumalanga, which are; Nkangala, Gert Sibande and Ehlanzeni regions. Women employed by government in the following departments participated in the study: Education; Health and Social Services; Culture, Sports and Recreation; Finance; Safety and Security; Local Government and Housing; Agriculture and Land Administration; Public Works; Roads and Transport; Economic Development and Planning and the Premier's Office participated in the study. These women occupy middle management positions, lay in salary levels nine (9) to twelve (12) and are related with a Living Standard Measurement of 6 – 10. The positions they hold include: Deputy Directors (DDs), Chief Education Specialists (CESs), Deputy Chief Education Specialists (DCESSs) and Assistant Directors (ADs).

Working women were chosen as the unit of analysis in this study as it was established through evidence in documented literature on the topic, that more than 80% of all household purchases in South Africa are made by women, especially consumer goods, especially with regard to the choice, purchase and preparation of food (Davies, 2001; Rousseau, 2003). Working women were a well chosen target group because it was expected that they would be a potential target market for convenience foods (Kok, 2003).

For the purposes of this study, 'working women' were defined as women engaged in full time paid employment, working at least 40 hours or more per week. A sample of black working women who work for about eight hours and thirty minutes or more a day were selected to participate in the research study. These women have time constraints as they work from 7h45 in the morning, until 16h15 or later in the afternoon and arrive home after five o'clock thus having little time to do their daily household chores. The terms 'working women', 'homemaker' and 'working wife' will be used synonymously in this study.

3.5.2 Sampling procedure

A stratified random sampling technique was chosen for this study as it is a method

used for gaining a greater degree of representativeness and decreasing sampling errors (Babbie & Mouton, 2001). A random selection of research respondents to participate in the survey was made from a list of all women employed by government in each department (as mentioned above in par.3.5.1), who held senior positions, namely, DDs, CESSs, DCESSs, and ADs. A number was allocated to each individual per stratum (post level) from the lists that had been obtained from the human resource unit of each department. Random number selection per department and per stratum (see Appendix C) was done. The stratified random sampling procedure was used to serve as a check on conscious and unconscious bias on the part of the researcher (Babbie & Mouton, 2001).

3.5.3 Sample size

The total number of the black female employees occupying middle management positions in the different government departments at the Government Boulevard Complex was three hundred and thirty five (335). Irrespective of the size of the

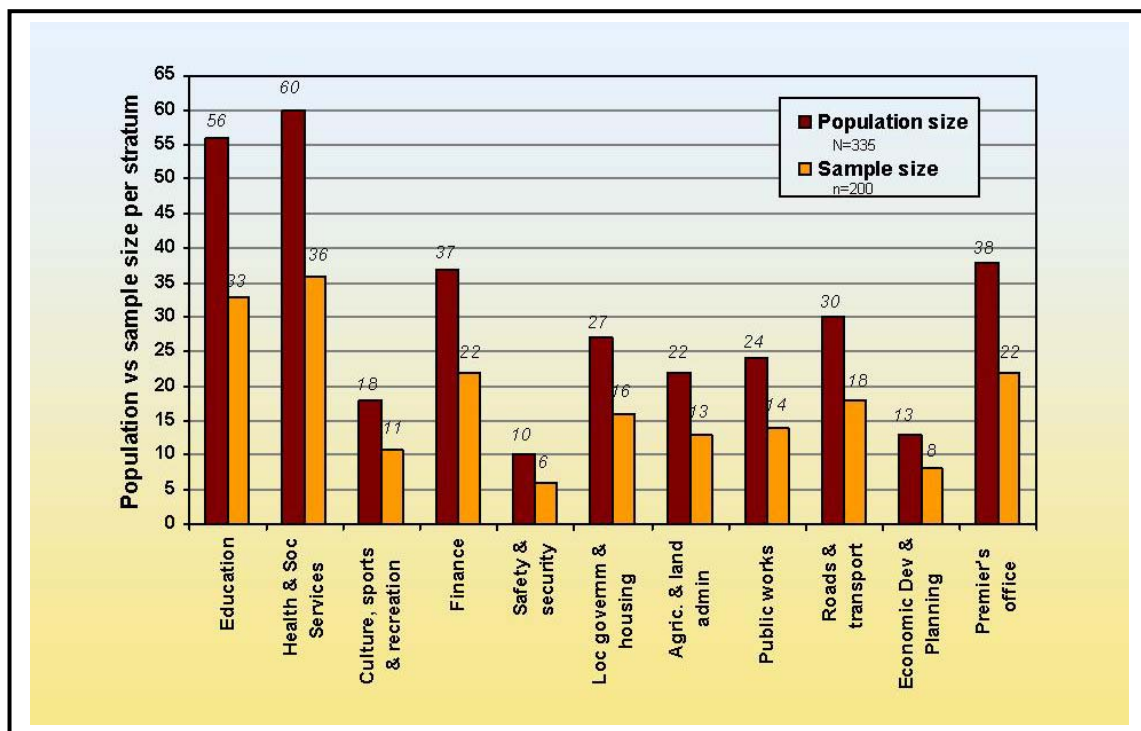


Figure 3.1 Population size

department, a proportionate sample of 60% was drawn from the total population of 335. The distribution per department in respect of the possible number of respondents who met the sample selection and the number drawn for the sample is given in Figure 3.1.

Of a possible 335 black working women in middle management positions, 200 were randomly selected to participate in the study. All were residents of Mpumalanga province, although from different regions, and were typically primary food purchasers responsible for the choice, purchase, preparation and use of convenience foods. The sample comprised 60% of the total population. The decision to use a large sample was due to the fact that it was drawn from a homogenous group of women. This was purposefully done as an attempt to improve the reliability of the sample data. Babbie & Mouton (2001) draw attention to the fact that a large sample taken from a homogeneous population reduces sampling errors.

3.6 CONCEPTUALISATION

This study used Figure 2.1 presented in chapter 2 as the conceptual framework. The conceptual framework highlighted the six variables that were to be measured in this study. These are: the frequency of use of the different convenience food categories; sensory attributes that contribute to the choice and use of convenience foods; the role that resources, the social environment and the occasion or situation play in the use of convenience foods; and the food outlets used for the purchasing of convenience foods in the area.

In chapter 2 all the main concepts were defined and described. Concepts such as convenience foods (see par. 2.2.1), sensory attributes (see par. 2.2.3), working women (see par. 2.3), work involvement (see par.2.3.2), time pressure (see par.2.3.3), resources (see par. 2.4.1), social/socio-cultural environment (see par. 2.4.2), and occasion/situation (see par. 2.4.3) and food acceptability (2.5) were

discussed. In this section the specific use of the terms ‘a working woman’ and ‘consumption/use of convenience foods’ as applicable to this work are reviewed.

3.6.1 A ‘working woman’

For the purpose of this study, a working woman is defined as an employed woman working full-time outside the home for monetary gain. The generally accepted (Brown, 2005; Kok, 2003; Levin *et al.*, 1999; Bonke, 1996; Gofton, 1995; Madill-Marshall *et al.*, 1995; Forster & Mammen, 1992) time frame of about 40 or more working hours in a week is adopted. The target group was women employed by government in middle management positions. For convenience, the terms ‘working woman,’ employed woman and ‘consumer’ are used synonymously in this report.

3.6.2 Consumption or use of convenience foods

Consumption is the act or an instance of consuming (eating or drinking). Use of convenience foods in particular means to make practical use of convenience food products or to use food products effectively or regularly in meal preparation for the household or for the individual consumer (Bender & Bender, 1995; Fowler, Fowler & Allen, 1990). The terms ‘use’ and ‘consumption’ are used synonymously in this study.

3.7 OPERATIONALISATION AND MEASURING INSTRUMENT

In order to measure the use and acceptability of convenience foods by black working women in Mpumalanga, closed and open-ended questions in the questionnaire were used to obtain information from participants responding to the questionnaire (see Appendix A).

In measuring the frequency of use, participants were asked how often they used the convenience foods as described in the specified four convenience food categories (see par. 2.3.1 and Section B of Appendix A – (Frequency of use values assigned for

data analysis were 'high', 'medium' and 'low'). As suggested by Wyne *et al.* (1994), it was assumed that, the higher the frequency of use, the higher the acceptability of the convenience foods.

With regard to the sensory attributes that contribute to the use of the convenience food categories, participants were asked to respond in terms of the degree of importance of the sensory attributes relating to the specific convenience food product in each category. The attribute that received the 'very important' assessment was regarded as the one that contributed the most.

The influence of resources, the social environment and occasion or situation was measured by asking participants to respond with 'yes' or 'no' to statements in relation to the different food contexts. A 'yes' response meant that that particular context contributes to the use and acceptability of convenience foods.

A preliminary questionnaire was designed by the researcher herself as she could not find a suitable existing measuring instrument in the consulted literature. Babbie and Mouton (2001) contend that no matter how carefully a researcher may devise a data collection instrument such as a questionnaire, there is always the possibility of error, or inclusion of an ambiguous question. To avoid the possibility of this happening, experts from the Consumer Science Department as well as statistical advisors at the University of Pretoria evaluated the designed questionnaire (Appendix A) for content and measurement validity. The questionnaire was then pre-tested using ten participants in November 2006 before the real data collection process took place. The questionnaire was then refined (with the help of the University statistician and Consumer Science experts) and made ready for data collection.

The questions were designed so that respondents only had to choose one or more than one aspect between given options or between 'yes' and 'no'. There were only five open-ended questions where the respondents had to indicate their age, number of children in the household, age in years of the oldest and youngest child and the

number of people for whom the food was usually prepared. The questionnaire was purposefully compiled in such a manner as to not take too long to complete. The questions were easy to understand and relevant to the topic under investigation. This controlled the accuracy and precision of information supplied by respondents and therefore enhanced the reliability of the data collected. The table below summarises the composition of the questionnaire.

Table 3.1: Composition of the questionnaire (Appendix A)

Section of the questionnaire	Concepts measured
Section A: Questions 1 - 16	Demographic characteristics of respondents
Section B: Question 17	The frequency of use of different convenience food (CF) categories
Section C: Question 18	The importance of sensory attributes in the choice of convenience foods
Section D: Question 19	The influence of resources on the use of convenience foods
Section E: Question 20	The influence of the social environment on the use of convenience foods
Section F: Question 21	The influence of occasion/situation on the use of convenience foods
Section G: Question 22	Places where convenience foods are purchased

Section A: Demographic information (Questions 1 – 16)

The biographic profile included demographic, employment and household management information. Questions related to: Age, region where resident, educational qualifications, government department attached to, position held, salary level, money available for purchasing food, marital status, number of children in the household, age of the oldest and the youngest child, time spent in food preparation on different occasions and the number of people for whom food was usually prepared. Respondents were simply required to draw a circle around an appropriate number in a shaded box or write an answer in the shaded space provided.

Section B: The frequency of use of convenience food products in the four convenience food categories

For each convenience food category, ten convenience food items were listed. A five point scale as shown below was used where respondents were to indicate their frequency of consumption/use by drawing a circle around an appropriate number.

Scale used:

Five point frequency scale		
Value	Description	Code
1	Never or less than once a week	Ni
2	1 to 2 times a week	1w
3	3 to 4 times a week	3w
4	5 to 6 times a week	5w
5	Every day of the week	Ed

Section C: Sensory attributes that contribute to the use and acceptability of convenience foods

In this section respondents were asked to indicate on the four point scale (see scale below) the degree of importance they attached to each of the five sensory attributes i.e. appearance, taste, texture, smell and flavour with regard to the choice, use and acceptability of each convenience food item from each convenience food category.

Scale used:

Four point scale indicating importance		
Value	Description	Code
1	Of no importance	no
2	Of little importance	li
3	Important	Im
4	Very important	Vi

Section D: The influence of resources in the use of convenience foods

To gather information on the influence of resources on the use of convenience foods, respondents were asked to draw a circle around a 'yes' or 'no' number on the reasons for their use of convenience foods. The suggested reasons set pertained to the influence of tangible and intangible resources such as convenience food availability, price, available storage space, access to household equipment and appliances, income, knowledge, and skill on the use of convenience foods and on the use of raw ingredients in food preparation to mention but a few.

Section E: The influence of the social environment on the use of convenience foods

In this section on the influence of social environment, respondents were asked to respond by drawing a circle around a 'yes' or 'no' number to indicate social environments that influence their choice of purchase and use of convenience food products. These included aspects such as the convenience of convenience foods, beliefs about them and their life style.

Section F: Occasion/situation for acceptance and use of convenience foods

To gather information on the influence that the occasion or situation has on the use of convenience foods respondents had to draw a circle around a yes or no on an appropriate occasion/situation. Situations ranged from using convenience foods during lunch at work, supper at home, when entertaining guests, during breakfast, on weekdays and over weekends.

Section G: Places where convenience foods are purchased

In this section respondents were to indicate the places where they generally purchase convenience foods. The response had to be a 'yes' or 'no' to the options available. The places ranged from big supermarkets to spaza shops.

All questions in the questionnaire were relevant to the achievement of the set objectives of the study.

3.8 DATA COLLECTION

Data for the study came from questionnaires and their administration and an observation checklist.

3.8.1 Questionnaire

A questionnaire was important in this study. As Babbie and Mouton (2001) note, it is through the use of a questionnaire that it is possible to evoke response from participants about their feelings, beliefs and experiences or activities. In this study, this technique was applied to an investigation into the use of convenience foods by black working women.

Questionnaires (Appendix A) were distributed to 200 randomly selected persons per employment level stratum who were female middle managers in each government department at the Government Boulevard Complex in Mpumalanga. The researcher delivered the questionnaires personally to each department and then collected the completed questionnaires herself. Each respondent completed the questionnaire individually during a scheduled time slot as arranged with each department's human resource unit on separate days. This was done in December 2006.

3.8.2 Approval and administration of questionnaires

The researcher sought and received approval from the Mpumalanga government to conduct the research through the administration of questionnaires in each government department at the Government Boulevard Complex in the capital city of Mpumalanga, Nelspruit (see Appendices D, E and F). The purpose of the research was clarified in the written requests to the director general and the provincial

superintended general in the department of education. The human resource managers in each department assisted with the distribution and collection of the questionnaires and were very co-operative in this regard.

3.8.3 Observations on availability of convenience foods

Since the researcher is a food consumer and a working woman herself, it was convenient to observe food purchase behaviours of the working women. Rather than simple observation where the researcher remains an outside observer, the researcher became a participant observer (Babbie & Mouton, 2001). She used a checklist for the observation (see Appendix B).

The availability of convenience foods from the four convenience food categories in the different food supermarkets was recorded. The observations were done at Pick 'n Pay, Spar, Shoprite Checkers, Woolworths, Kwik Spar, spaza shops, OK and street vendors as outlets for the purchase of convenience foods on monthly basis. This was done one afternoon during lunch time and after working hours after data had been collected from the respondents. Only places most used by respondents were included in the observation exercise.

3.9 DATA ANALYSIS

After successful collection of data, respondents' scores were computed for frequency analysis and descriptive statistics were performed using Statistical Package for the Social Sciences (SPSS), version 9.0.1, statistical data programme performed by a computer. The statistical services of the University of Pretoria, under the leadership of Dr Mike van der Linde, were used to code and calculate the frequencies and means according to the frequency procedures after the coded data were cleaned. Variable grouping of values was done for V5, V10, V11, V12 and V13. Quantitative research approaches were used to analyse the data.

The data analyses revealed the frequency of use of the different convenience food categories. Correlations between the working women and their demographic variables, food context in terms of the influence of resources, social environment and occasion or situation in the use of the convenience foods within the various convenience food categories, were established. Tables, graphs, frequency and percentage distributions reflected the findings of the research (see chapter 4).

In this study descriptive and inferential statistics were used to analyse data. Descriptive statistics were used in organising, tabulating and summarising the data at hand in order to render it more comprehensible. Descriptive statistics were also used to describe the objectives set for this study.

Inferential statistics were used in this research study to make assertions about the larger population from which the sample was drawn. Representing inferential statistics, the chi-square test of significance and measure of correspondence between fact and theory, was applied. The chi-square test is based on the null hypothesis that there is no relationship between the two variables in the total population (Babbie & Mouton, 2001). Fisher's Exact Test was also used to verify the chi-square results in terms of the significant relationship between the variables (Steyn, Smith, Du Toit & Strasheim, 1994).

The level of significance of an observed association in this study is reported in the form of the probability value that indicated whether the association could have been produced merely by sampling error. The association was accepted as significant at the 0.05 level, which is to say that an association as large as the observed one could not be expected to result from a sampling error more than five times out of a hundred (Babbie & Mouton, 2001).

3.10 SUMMARY

This chapter outlined the research methodology. The research methods reflected the methodology, which included describing the population, the sampling procedure for selecting respondents, data collection techniques and the administering of the data collection instruments. Some techniques regarding the analysis of the data were highlighted because data analysis, in essence, has a direct bearing on the interpretation and outcome of the study. Because of the nature of the research design, it was essential to illustrate as to how reliability and validity of the study was to be maintained. It was also vital to express some measures of reference on which the trustworthiness of the study could be based.

The next chapter focuses on data analysis and interpretation in a discussion of the results.

CHAPTER 4

Results and Discussion

4.1 INTRODUCTION

This chapter presents a report on the results of the empirical inquiry into the acceptability and use of convenience foods by black women employed by government in Mpumalanga. The empirical enquiry or investigation was done using a self administered questionnaire (see Appendix A) administered to a group of 200 black working women. These working women were in middle management positions in their own sections or directorate at the government Boulevard complex in Nelspruit, the capital city of Mpumalanga province.

Of the 200 distributed questionnaires, 178 questionnaires were returned, properly completed. This is 89% of the distributed questionnaires, a sizeable and representative sample of the target population, thus meeting the required prerequisite for acceptable generalisation of the findings. The data thus collected is discussed in this chapter.

Only 22 questionnaires could not be returned as some middle managers were not willing to complete the questionnaire. Participants from the Health and Social Services Department and the Premier's Office could not return questionnaires for reasons that cannot be disclosed in this study.

The data collected was analysed to determine which, and how frequently, convenience foods in the different convenience food categories were used. In addition, the respondents' perceptions of the effect of sensory attributes,

resources, the social environment and the occasion or situation have on the use of convenience foods, was investigated. Food outlets mostly used by the target group were identified. As a control measure, an observation checklist on the availability of convenience foods in food product outlets generally used by the working women for food purchasing, was completed for triangulation purposes.

In order to meet the objectives set for this research study, the data was analysed using descriptive and inferential statistics.

4.2 PROFILE OF THE RESPONDENTS

In order to cater for a specific market, food product manufacturers and retailers should be aware of the profile of the consumers as it supplies background information of their clientele. From a research point of view, the respondents' profile was determined to verify findings from the literature review, as well as to familiarise the researcher with the respondents' characteristics thus facilitating the enquiry into the research questions posed.

The profile of the respondents in this research was compiled in terms of the region of origin; department employed in; highest educational qualification; age; present position; income salary level; disposable money for food purchasing; marital status; number of children in the household; age of the oldest and of the youngest child; number of people cooking for; time spent in meal preparation during the week, weekend as well as when preparing meals for guests and equipment used for meal preparation.

4.3 DEMOGRAPHIC INFORMATION OF RESPONDENTS

The demographic information of the respondents who participated in the study (section A, questions 2 – 24) is presented in this section.

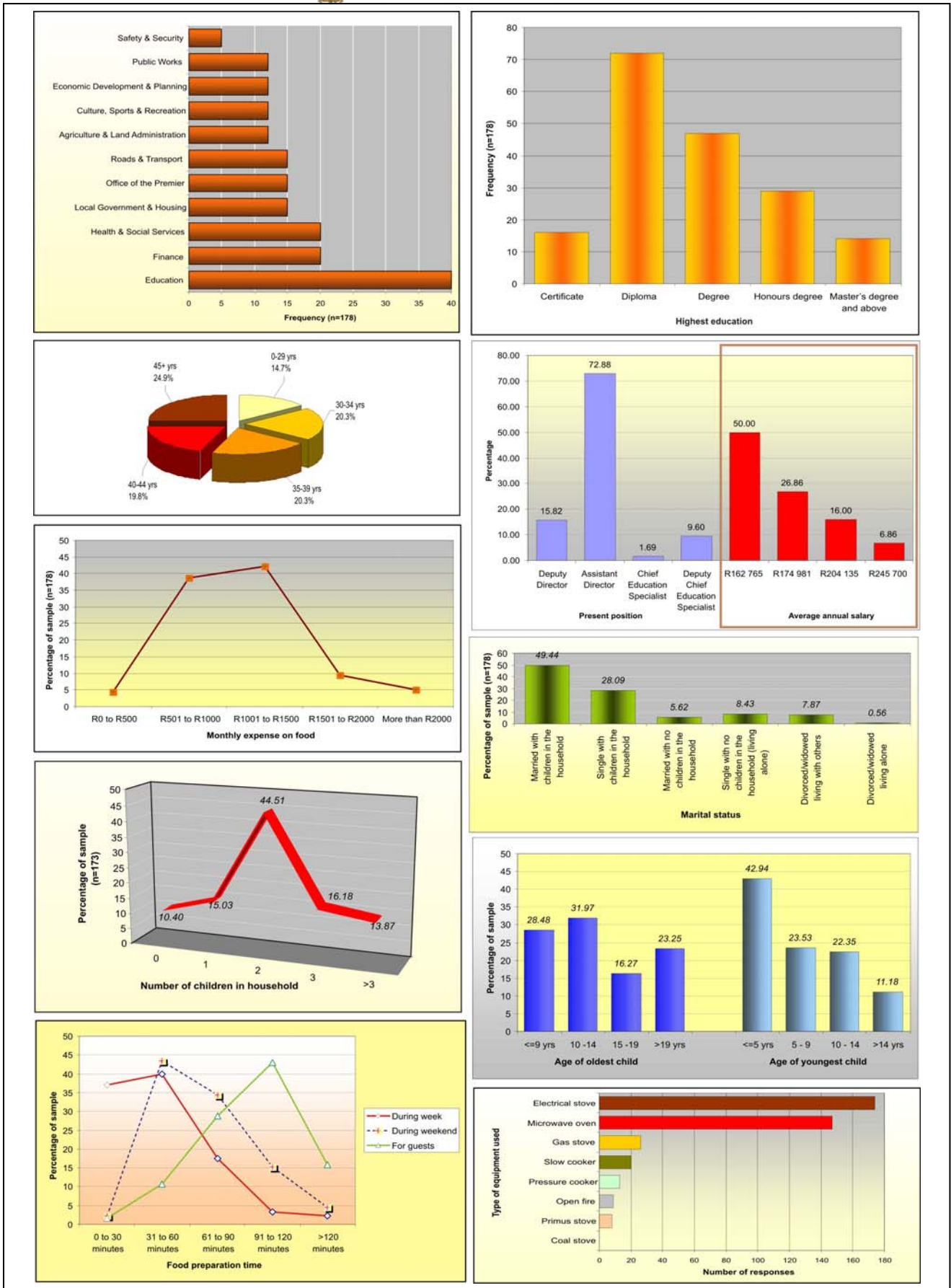


Figure 4.1: Overview of sample profile

4.3.1 Analysis and interpretation of the demographic information

4.3.1.1 Regions

Figure 4.2 illustrates the distribution of respondents originating from the three regions in Mpumalanga province. Out of the 178 women (respondents) working as middle managers at the government Boulevard complex (located in the northern area of Nelspruit), 33 (19%) were from Nkangala region, 40 (24%) from Gert Sibande region and 97 (57%) were from Ehlanzeni region (see Figure 4.2).

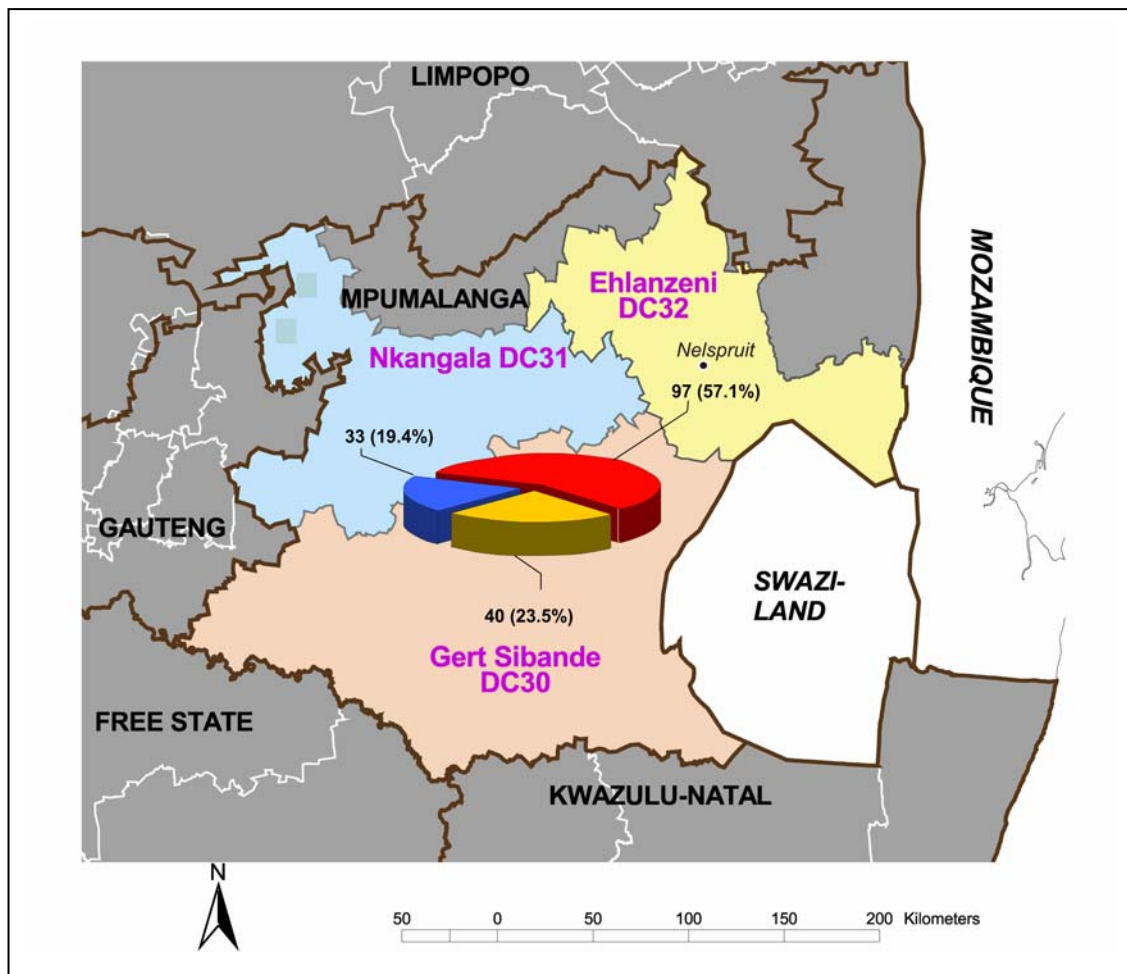


Figure 4.2: Frequency distribution of respondents' from the three regions

Figure 4.2 shows that the majority of women employed at the government Boulevard in middle management positions in the survey were from Ehlanzeni, followed by Gert Sibande and Nkangala regions respectively. The fact that the majority of the women employees are from Ehlanzeni, could well be explained by the fact that this is where the government complex is situated. The boundaries of Gert Sibande and Nkangala regions are about 130km from the government complex (see also Figure 4.3), implying a considerable time-consuming commuting distance for residents from these regions.

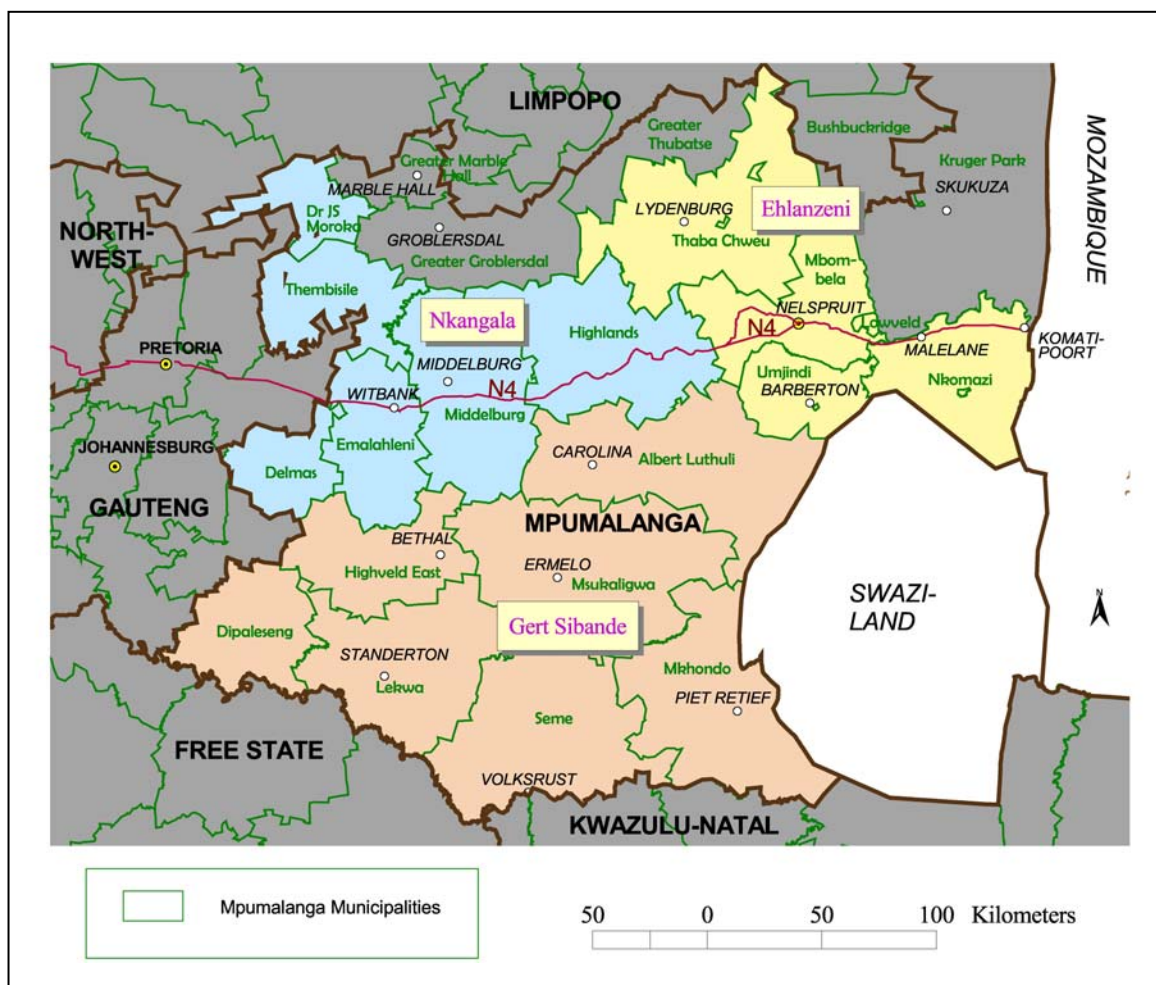


Figure 4.3: Map of Mpumalanga showing municipalities and the three sample regions

4.3.1.2 Departments

Women who participated in the survey were women employed in the different government departments as shown in figure 4.4. The majority of women in the study were from the Departments of Health and Social Services and Education, the two largest departments in the province with the most employees, followed by the Premier’s Office and the Finance Department (see Figure 4.4), in order of women employee majority. The department with the fewest employees at the government Boulevard complex is the Safety and Security Department as the majority of its employees serve at municipal level in the different regions and sub-regions.

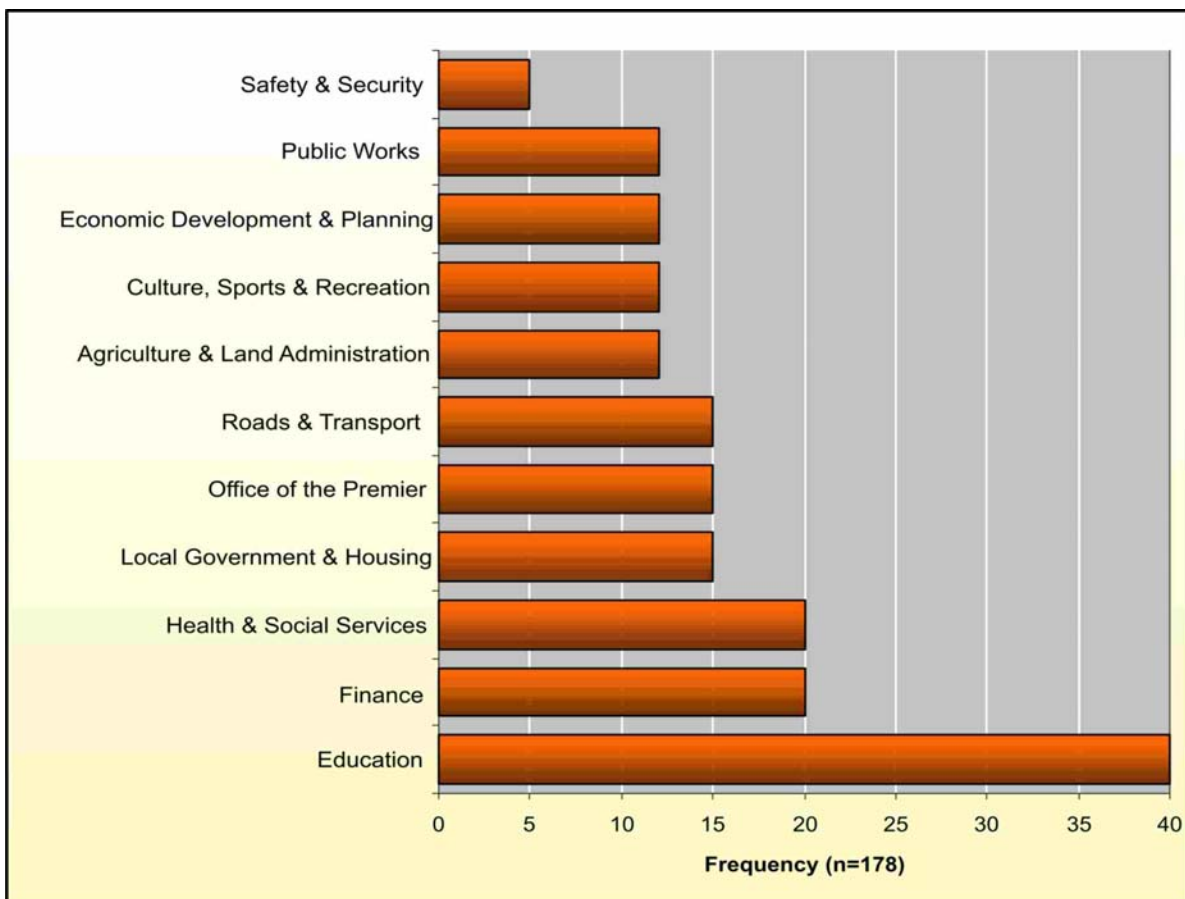


Figure 4.4: Frequency distribution of respondents in the different departments

4.3.1.3 Highest educational qualifications

Figure 4.5 indicates the distribution frequency of the educational qualifications of the respondents who participated in this research study. The figure shows that 72 (40.45%) of the respondents have a diploma, 47 (26.40%) a first degree and 29 (16.29%) an Honours degree. Sixteen (8.99%) of the respondents have a certificate and 14 (7.89%) a Master's degree or above such as doctoral degree. It can be concluded, from the descriptive statistics, that the majority of the working women have post school-leaving qualifications and are well qualified and well educated.

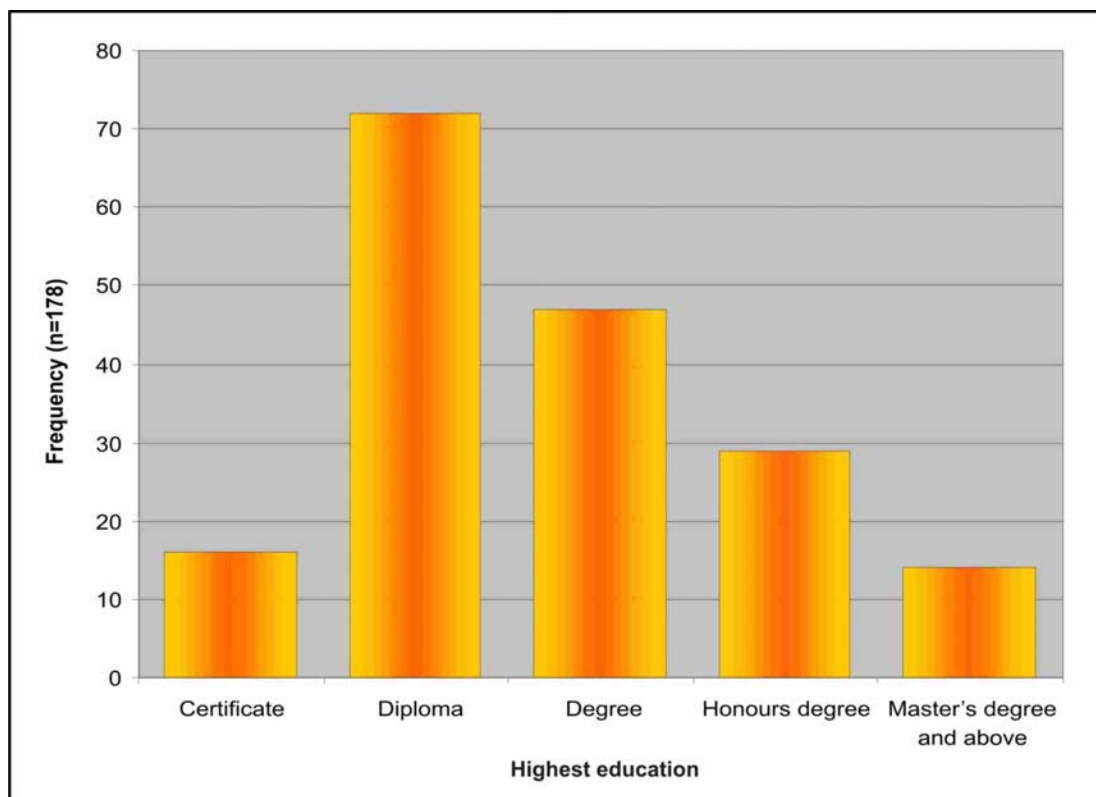


Figure 4.5: Frequency distribution of highest educational qualifications of the respondents

Other research findings (Capps & Park, 1997; Madill-Marshall *et al.*, 1995; Capps *et al.*, 1985) have shown that education is positively correlated with the

consumption of purchased meals, use of pre-prepared meats and prepared baked goods (see also par. 2.2.1). Kok (2003) on the other hand contended that women with higher education are more sceptical about convenience foods as they tend to be more aware of health, good nutrition and hygiene.

4.3.1.4 *Age of the respondents*

Figure 4.6 depicts the age groups of the respondents for this study. The youngest age group of the respondents was the smallest - 26 (14.69%) respondents in terms of frequency which is the age group of less than or equals to 29 and greater than or equals to zero (0-29). The largest age group comprised 44 (24.86%) respondents older than 45 years. The remaining three fifths of the sample were fairly evenly distributed in other age groups: Both the 30-34 and 35-39 age groups had 36 (20.34%) respondents each and the (40-44) age group, 35 (19.77%) respondents.

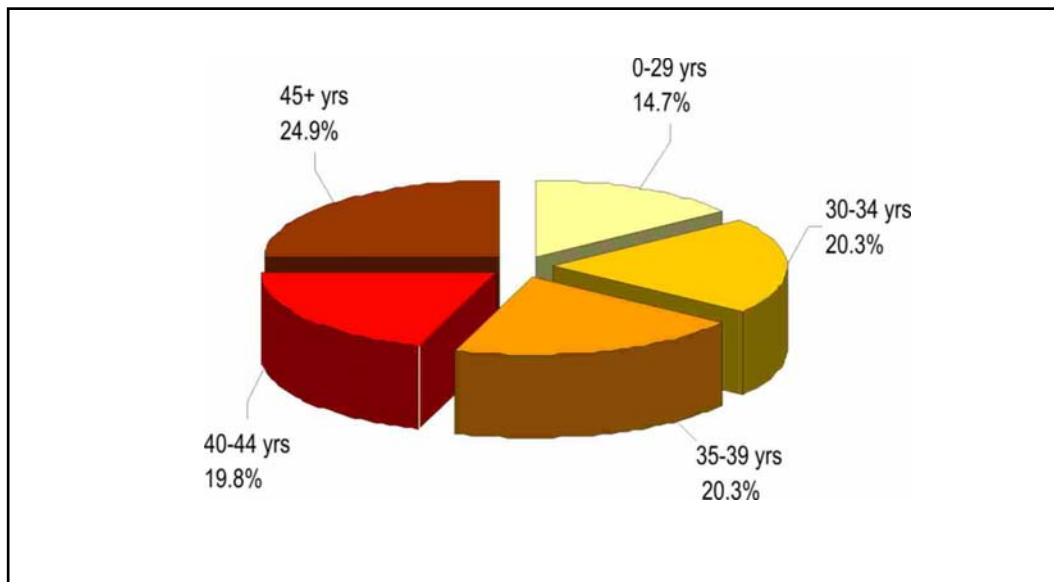


Figure 4.6: Frequency distribution of age groups of the respondents

The results depicted from Figure 4.6 substantiate the Living Standards Measure the researcher used for the respondents for this study, LSM 6-10. The people in

these LSM groups are in the age groups 16 – 34 and 35+ (Du Plessis & Rousseau, 2003).

4.3.1.5 Position held

Figure 4.7a demonstrates that 129 (72.88%) of the respondents were assistant directors in the different government departments, 28 (15.82%) were deputy directors, 17 (9.6%) were deputy chief education specialists and three (1.69%) were chief education specialists. This shows that most of the women employed at the government complex occupy Assistant Director's (AD) posts with very few of them occupying the higher posts of Deputy Chief Education Specialists (DCESSs), Chief Education Specialists (CESs) and Deputy Directors (DDs). The following is a graphic representation of respondents in the different posts. From the researchers' observation, the positions of deputy director, chief education

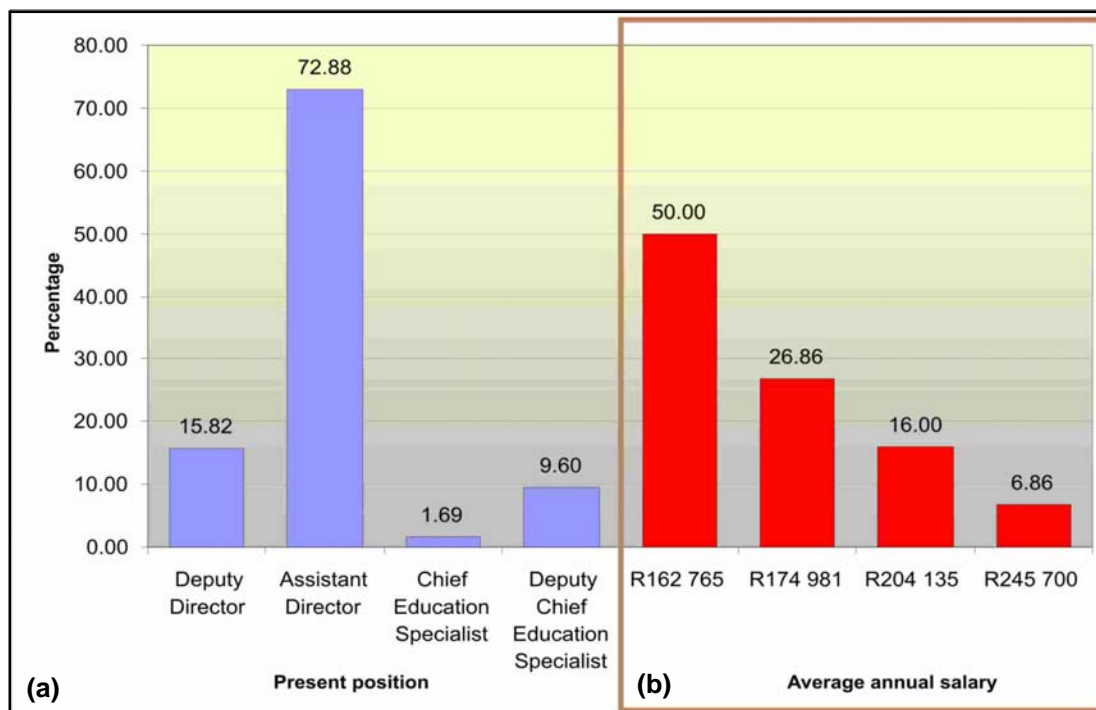


Figure 4.7: Frequency distribution of (a) position held by the respondents and (b) average annual salary of respondents

specialist and deputy chief education specialists are mostly occupied by male employees, thus having few female employees occupying those posts.

4.3.1.6 *Income salary level*

Figure 4.7b shows a frequency distribution of the income salary level of the respondents. Half the respondents (50%) respondents indicated that they earned about ±R162 765 per annum (an entry level salary scale for Assistant Directors), 47 (26.86%) of respondents earn about ±R174 981 per annum (an entry level salary scale for DCES, 28 (16.00%) of the respondents in a year were earning ±R204 135 per annum (an entry level salary scale for Chief Education Specialists) and 12 (6.86%) of the respondents earn ±R245 700 per annum (an entry level salary scale for Deputy Directors). The trend corresponds closely to the positions held (Figure 4.6a) and with the upper LSM categories (2.3.1.1). The women participating in this study earned a reasonable amount of money in keeping with the positions they hold.

Research has shown that households in the upper socio-economic strata have a higher convenience foods orientation than households in average and low socio-economic strata (Anderson, 1971).

4.3.1.7 *Money available for food purchasing per month*

Figure 4.8 indicates that 75 (42.13%) of the respondents spent between R1001 to R1500 per month on purchasing food, 69 (38.76%) of the respondents spent between R501 to R1000 on food purchases per month, 17 (9.55%) spent between R1501 to R2000 on food purchasing per month, only 9 (5.05%) of the respondents spent more than R2000 on food purchasing per month and 8 (4.49%) of the respondents spent between R0 to R500 on food purchasing per month. This shows that most of the working women spent a reasonable amount of money per month on food for their families and households, even though most

of them were at the salary level of +-R162 765 per annum which could be about R13 563, 75 gross salaries per month.

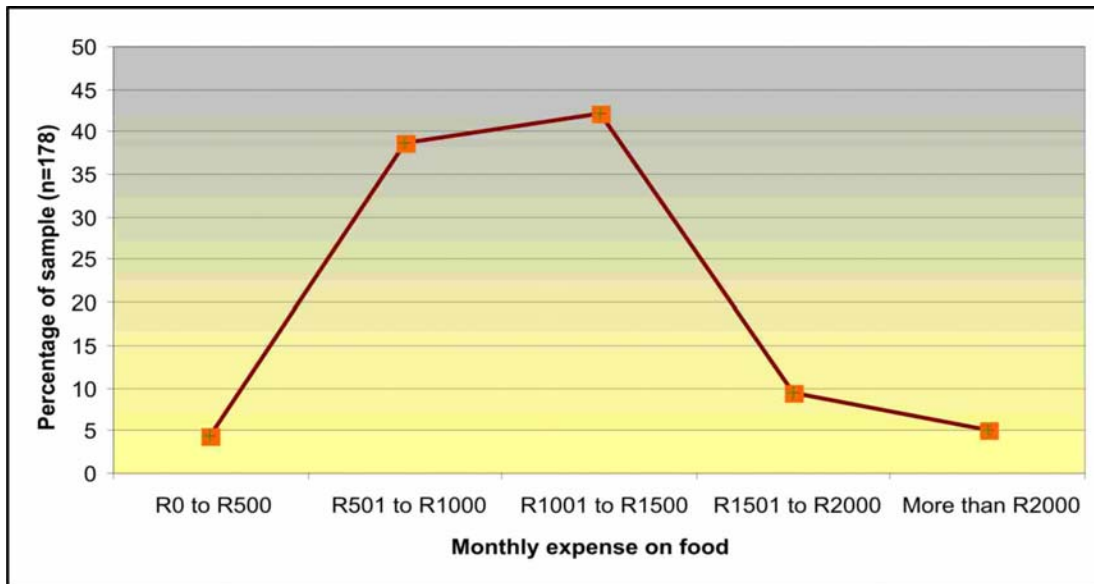


Figure 4.8: Frequency distribution of money available for monthly food purchasing

The result of the analysis of information gathered on the total amount of money spent on food in the different convenience food categories concurs with the findings of Gofton (1995) in his research. He found that, if the primary meal preparer was in paid employment, her rate of pay was directly and positively related to the rate of consumption of complex and manufactured convenience foods. Furthermore, this result substantiates Du Plessis and Rousseau's (2003) contention that households in Living Standards Measures 6-10 spend between R505 – R1 990 per month on food.

4.3.1.8 Marital status

Figure 4.9 illustrates the marital status of the respondents. About 88 (49.44%) of the respondents were married women living with children in their households, 50 (28.09%) of the respondents were single women living with children in the

household, 15 (8.43%) of the respondents were single women with no children in the household, 14 (7.87%) of the respondents were divorced/widowed and living with others, 10 (5.62%) of the respondents were married with no children in the household and only 1 (0.56%) of the respondents was divorced/widowed and living alone. This shows that most (49.44%) of the black working women, are married and have children living in the household so find themselves having to manage work, household and childcare responsibilities. This puts time pressure on them. Only a few of the respondents were married without children in their households i.e. 5.62%.

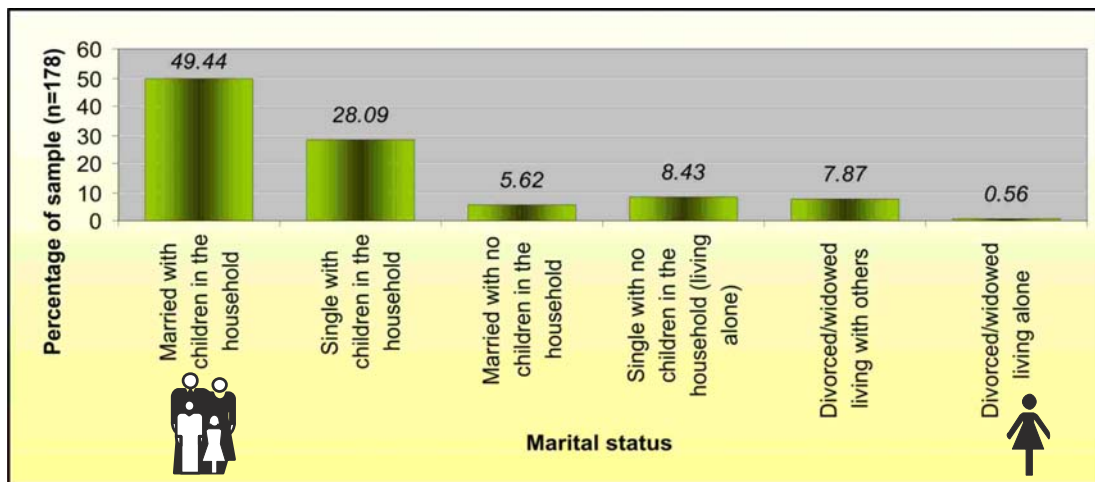


Figure 4.9: Frequency distribution of respondents' marital status

This finding endorses the reality as stated by Jabs and Devine (2006) that managing household and family responsibilities was found, through research, to be difficult for married working women and worst for single parents who often have no one with whom to share housework, childcare and other duties.

4.3.1.9 Number of children in the household

Figure 4.10 concerns the frequency distribution of the number of children in the household. About 77 (44.51%) of the respondents indicated that they have only 2

children living with them in their households, 28 (16.18%) of the respondents indicated that they were living with 3 children in their households, 26 (15.03%) of the respondents indicated that they were living with only 1 child in the household, 24 (13.87%) of the respondents indicated that they were living with more than 3 children in the household and only 18 (10.40%) of the respondents did not have children in their households. Most of the respondents had two (2) children in their households.

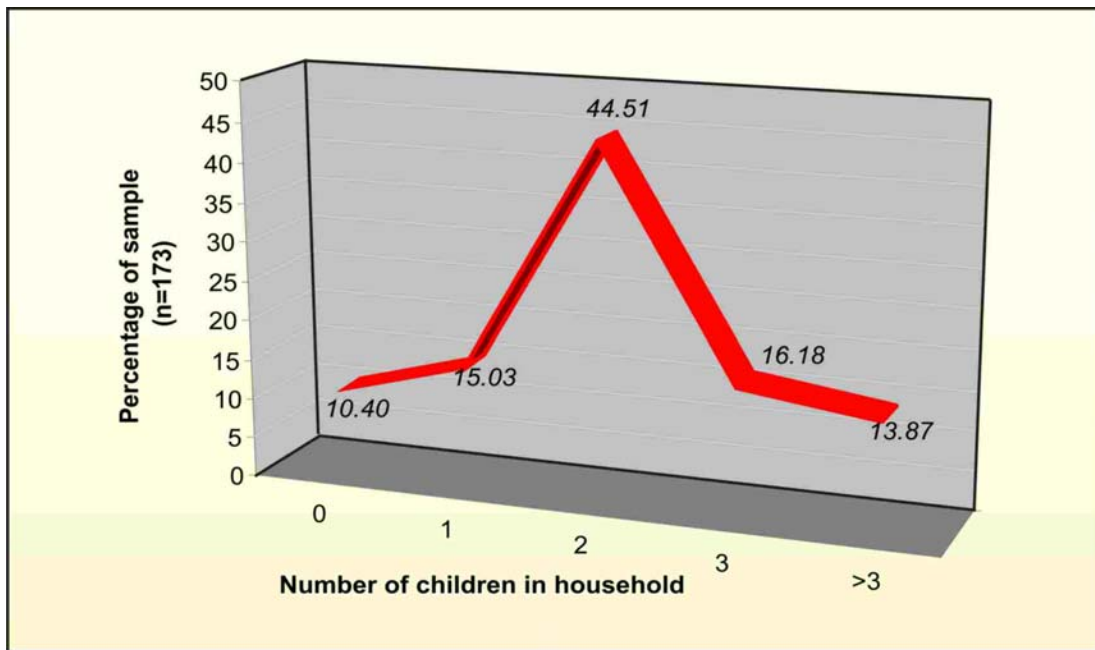


Figure 4.10: Frequency distribution of the number of children in the household

4.3.1.10 Age in years of the oldest child

Figure 4.11a presents the age groupings of the oldest child in the household as given by the respondents. It is noted that out of the 178 respondents, 55 (31.97%) live with children between the age group of younger than or equal to 14 and older than 9 years (10-14yrs). The next larger grouping is the age group of younger than or equals to 9 and greater than or equals to 1 (0-9yrs), which was 49 (28.48%), followed by the age group of greater than 19 years of age (19yrs+),

which was 40 (23.25%). The least age grouping as highlighted by respondents was the age group of less than or equals to 19 and greater than 14 years (15-19yrs), which had 28 (16.27%) respondents. A larger number of the respondents live with older children between the ages of ten and fourteen (10-14yrs), followed by those living with younger children from birth to nine years old.

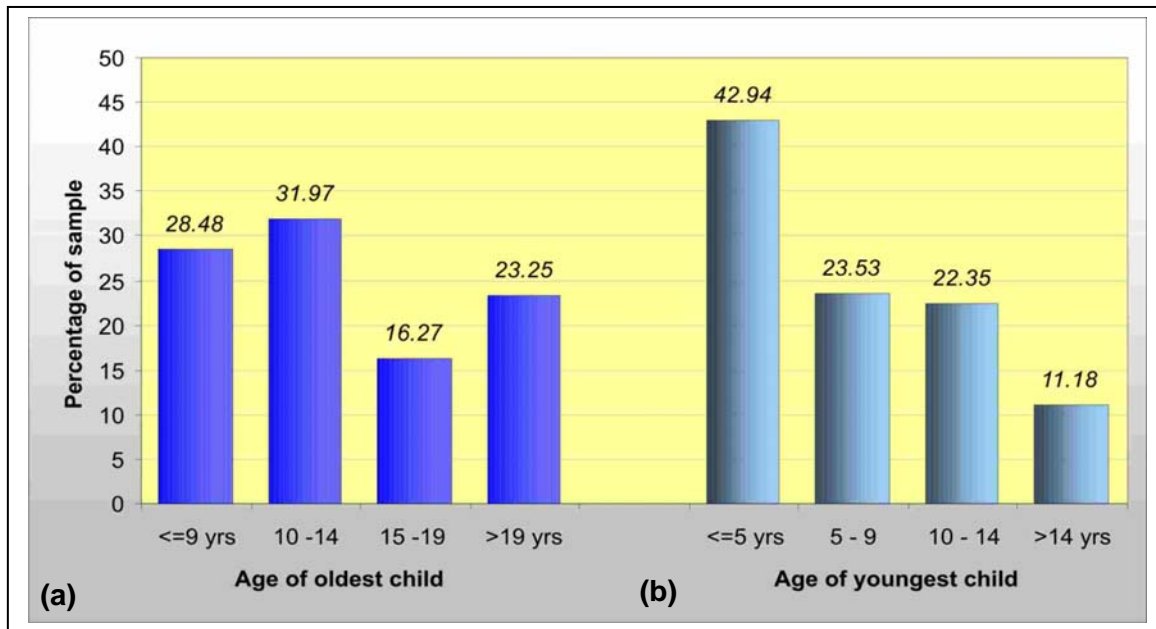


Figure 4.11: Frequency distribution of age in years of (a) the oldest child and (b) the youngest child in the household

4.3.1.11 Age in years of the youngest child

Figure 4.11b depicts the age grouping of the youngest child in the household as recorded by the respondents in this study. The highest responses in terms of the age of the youngest child were registered in the age group of less than or equals to 5 and greater than or equals to 0 (0-5yrs) age group with 73 (42.94%) respondents, followed by the age group of less than or equals to 9 and greater than 5 (6-9yrs) age group with 40 (23.53%) respondents and the age group of less than or equals to 14 and greater than 9 (10-14yrs) age group which had 38 (22.35%) respondents. The lowest responses in terms of the age of the youngest

child were in the age group of greater than 14 (15yrs +) with 19 (11.18%) respondents.

This result concurs with the findings of other research studies that report a high consumption of convenience foods in households with children under the age of 6, moderate in families with children aged 6 – 12 and less in families with children aged 12 – 18 (Jae *et al.*, 2000).

4.3.1.12 *Number of people cooking for in the household*

Figure 4.12 show a frequency distribution of the number of people in the household for whom the working woman cooks. There were 73 (41.48%) of the respondents who indicated that they cook for 4 people in their households, 54 (30.68%) of the respondents cook for more than 5 people in the household, 25 (14.20%) of the respondents highlighted that they cook for 3 people in their households. Twenty four (13.64%) of the respondents highlighted that they cook for 0-2 people in their households (see graphic representation).

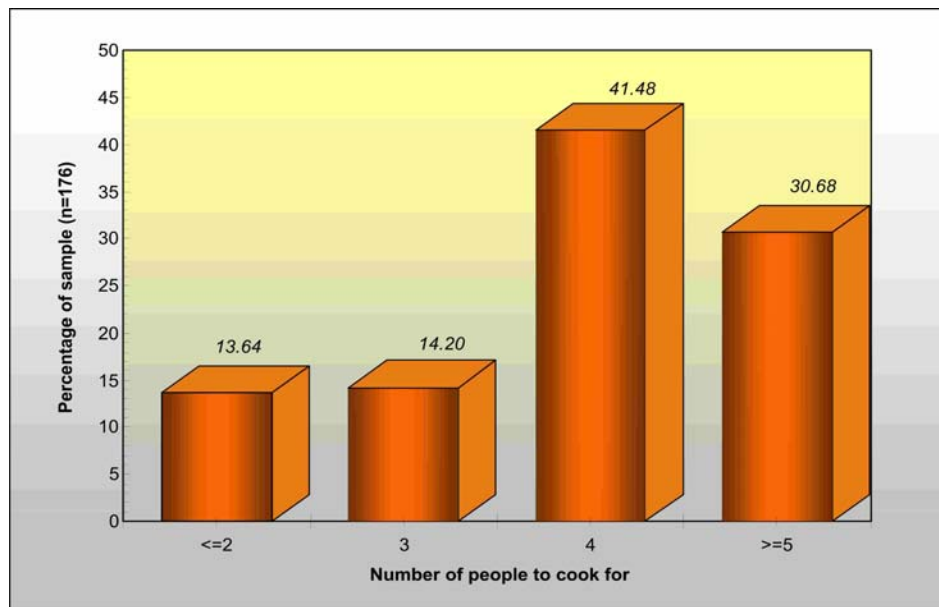


Figure 4.12: Frequency distribution of the number of people in household for whom the working women has to cook

The finding that most of the respondents cook for four or more people living with them in their households is close to those of the Living Standards Measurements. Groups 6, 7 and 8 have an average number of 4.64%, 4.46% and 4.37% people in their households respectively, and groups 9 and 10 3.63% and 3.43% respectively (Du Plessis & Rousseau, 2003).

4.3.1.13 Time for food preparation per main meal during the week

Figure 4.13 demonstrates that 71 (39.89%) of the respondents want to spend only 31 – 60 minutes when preparing their main meal during the week. There were 66 (37.08%) respondents who specified that they spend 0 – 30 minutes when preparing a main meal during the week, 31 (17.42%) of the respondents spend between 61 – 90 minutes when preparing the main meal, 6 (3.37%) respondents spend between 91 – 120 minutes when preparing their main meal and only 4 (2.25%) respondents spend more than 120 minutes when preparing their main meal during the week.

The majority of the respondents would like to prepare meals within an hour, followed by those who would like to prepare their meals within thirty minutes time during the week, obviously to be able to take care of other household responsibilities and be able to get time to relax and also to prepare for the next day. Researchers argue that working women, due to time constraints would like to spend 30 minutes or less when preparing meals on weekdays (Enslin, 2006; Brown, 2005; Candel, 2001; Brody & Lord, 2000; Sloan, 1999; Bock *et al.*, 1998; Hollingsworth, 1997; Gofton, 1995).

4.3.1.14 Time for food preparation per main meal during weekend

Figure 4.13 indicates as well a distribution frequency of food preparation time during the weekend. This figure shows that 77 (43.50%) of the respondents spend 31 – 60 minutes when preparing their main meal during the weekend, 61

(34.46%) spend 61 – 90 minutes, 27 (15.25%) spend 91 – 120 minutes and 8 (4.52%) spend more than 120 minutes and only 4 (2.52%) spend 0 – 30 minutes when preparing their main meal during the weekend. About 81 (45.76%) of the respondents would like to prepare their main meals within an hour over the weekend. However, 96 (53.93%) of the respondents would like to spend more than an hour when preparing meals over weekends. This shows that respondents like to prepare meals from scratch using raw ingredients during the weekend when there is more time for preparing and eating the meal.

4.3.1.15 *Time for food preparation when preparing meals for guests*

Figure 4.13 illustrates as well that respondents spent more time when preparing meals for guests. Seventy six (42.94%) of the respondents stated that they spent 91 – 120 minutes when preparing meals for guests, 51 (28.81%) spent 61 – 90

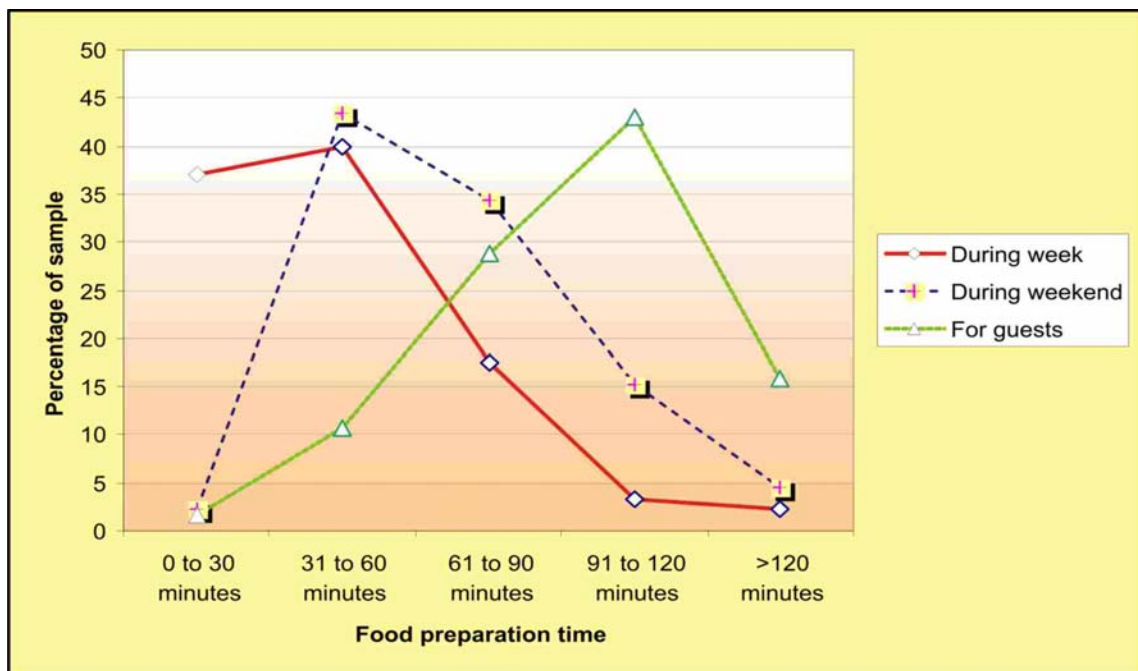


Figure 4.13: Frequency distribution of time spent for food preparation during the week, weekend and preparing meals for guests

minutes, 28 (15.82%) spent more than 120 minutes, 19 (10.73%) spent 31 – 60 minutes and only 3 (1.69%) spent 0 – 30 minutes. The results, however suggest that respondents would like to spend more time when preparing meals for their guests and using fresh raw ingredients.

With the information gleaned from this survey, there is confirmation (Figure 4.13) of the fact that there are occasions and situations in which working women willingly spend more time preparing and eating meals, for instance on weekends or if they have guests (Sloan, 1999; Gofton, 1995; Madill-Marshall *et al.*, 1995).

4.3.1.16 Equipment used when preparing meals

Most of the working women in this survey recorded the use of a variety of cooking appliances (Figure 4.14) when preparing meals.

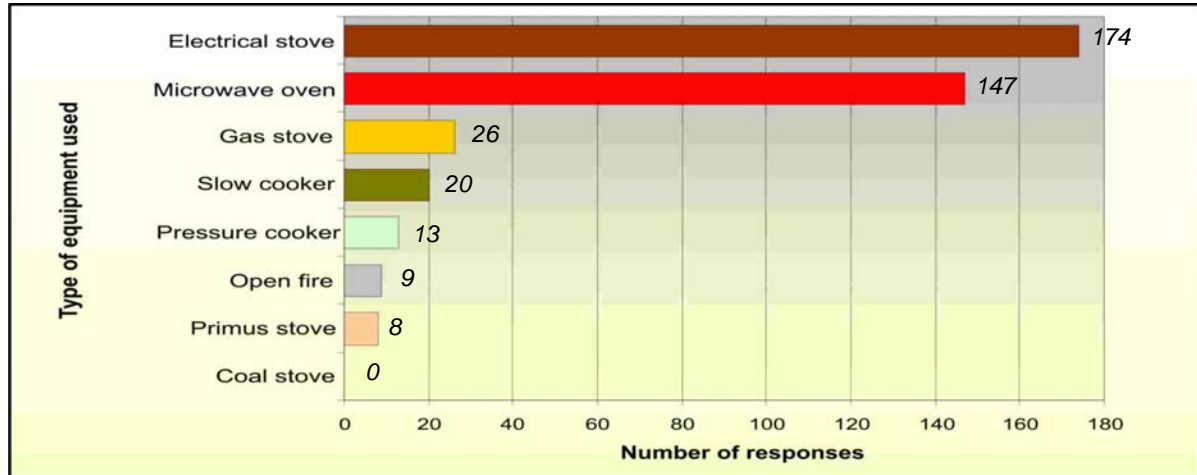


Figure 4.14: Frequency distribution of equipment used when preparing meals

Figure 4.14 shows that, of the 178 respondents, 174 of them used electrical stoves when preparing meals in their households and 147 respondents used microwave ovens as well. A few, about 26 of them, also used gas stoves, 20

respondents a slow cooker and 13 a pressure cooker. A primus stove was used by only 8 respondents and the open fire by 9 respondents. It is assumed that an open fire was usually only used for a “braai” (barbeque) or large meals prepared during family functions.

Of the 178 respondents, not even one of them used a coal stove for meal preparation for the obvious reason that they might not have time to prepare the fire from scratch. This finding, however, corresponds well with the description of the Living Standards Measurement (LSM) groups in which working women fall, namely 6 – 10, that ownership of large appliances, seen as time saving devices and durables, is a common occurrence (Du Plessis & Rousseau, 2003).

4.4 RESULTS AND DISCUSSIONS ACCORDING TO THE OBJECTIVES OF THE STUDY

The previous section in this chapter focused on the demographic information related to the respondents, namely the black women employed by government in Mpumalanga. The purpose of the following section of the chapter is to make a frequency analysis of the respondents in relation to the research objectives on the acceptability and use of convenience foods by black working women.

4.4.1 Frequency of consumption/use of convenience foods from each convenience food category (Objective 1)

In measuring the extent to which the respondents used the different convenience foods in the different convenience food categories, the frequency of use values is represented in the form of a scale (see next page).

The frequency of consumption/use by respondents for the different convenience food items (lists of the convenience food examples, compiled by the researcher

for each category A-D) in the different convenience food categories are presented in Figures 4.15 – 4.18 and are discussed below.

Option	Explanation	Code
1	Never or less than once a week	Ni
2	1 to 2 times a week	1w
3	3 to 4 times a week	3w
4	5 to 6 times a week	5w
5	Every day of the week	Ed

In measuring the extent to which convenience food items were used by the black women employed by government in Mpumalanga, respondents were requested to indicate the frequency with which they consumed each of the convenience food items in each convenience food category as illustrated below. The numerical data in the figures represent the mean frequency of use values for each example of the convenience food items included in this study. The rate of use was considered high when the mean frequency of use value was 5 to 6 times a week (4) and every day of the week (5); medium when the mean frequency value was 3 to 4 times (3) a week and low when the frequency of use value was 1 to 2 times a week (2) and never or less than once a week (1) (Wyne *et al.*, 1994).

- **Frequency of consumption/use of convenience food items in Category A: Fully prepared ready to eat convenience foods, consumed as purchased requiring no prior preparation**

Figure 4.15 depicts the convenience food items included as examples of convenience food products in convenience food category A. The mean frequency of consumption is illustrated in the bar graph using the mean frequency of use values. The following abbreviations are used:

- **Low frequency of consumption - LFC;**
- **Medium frequency of consumption - MFC and**
- **High frequency of consumption – HFC**

The results show a considerably low frequency of consumption (0 to 2 times a week) of nine convenience foods in the above convenience food category by more than 50% of the respondents. Only one of the surveyed convenience food products (Baked products i.e. bread, bread rolls, doughnuts, sandwiches etcetera) was consumed significantly often (5-6 times and every day of the week) by more than 50% of the respondents (57.06%).

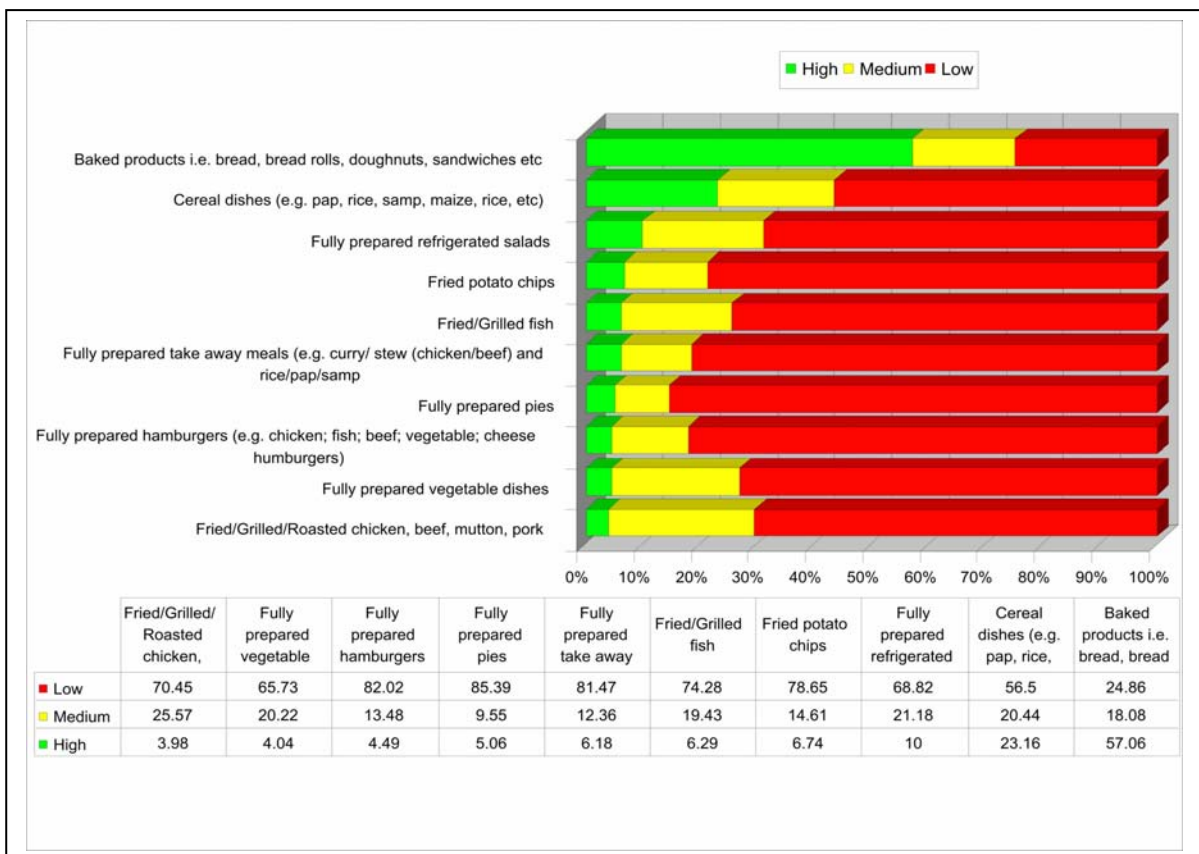


Figure 4.15: Consumption frequency in convenience food category A

Cereal dishes (e.g. pap, rice, samp, maize, rice) showed a medium and high frequency of consumption by 20.44% and 23.16% of respondents respectively.

Convenience foods with a medium frequency of consumption by between 20% and 26% of the respondents were fried/grilled/roasted chicken, beef, mutton, pork by 25.57% of the respondents; fully prepared refrigerated salads with 21.18% of the respondents and fully prepared vegetable dishes consumed moderately by 20.22% of the respondents (see Table 4.1 on page 98).

Food products that had a low frequency (0-2 times a week) of use by above 50% of the respondents in the above convenience food category were: fully prepared pies (85.39%); fully prepared hamburgers (82.02%); fully prepared take away meals (81.47%); fried potato chips (78.65%); fried/grilled fish (74.28%) and fried/grilled/roasted chicken, beef, mutton, pork (70.45%); fully prepared refrigerated salads (68.82%); fully prepared vegetable dishes (65.73%) and Cereal dishes (e.g. pap, rice, samp, maize, rice, etcetera) (56.5%) of the respondents.

The low frequency of consumption by the majority of the respondents is likely to be because of the educational level of the respondents (Figure 4.4) as they are more conscious of the nutritional value of foods. Kok (2003) contended that women with higher educational levels are more sceptical about convenience foods as they are aware of health, good nutrition and hygiene.

The food items that showed a moderate frequency of consumption seem to be familiar food items, i.e. baked products, cereal dishes; meat dishes, vegetable dishes and salads (see Table 4.1). Reed *et al.* (2003) contend that food choice and acceptance is culturally determined. An individual's cultural background and orientation as well as personal characteristics and perceptions determine what his/her food choices or dietary patterns will be. According to the researcher's observations, it can be deduced that respondents chose foods that were culturally acceptable to them. Moreover, their choice was also seen to be based on their knowledge of the basic food groups and their composition of important nutrients (however, the nutritional knowledge of the respondents was not

measured/tested in this research; this is just the observations of the researcher on the food items chosen by respondents and her deductions). Further research on the choice of convenience foods with the knowledge of nutrient content is recommended.

It is noted as well that food items accepted and consumed in this convenience food category A, represented food items that could be used as examples of food items from the three (or five) basic food groups. The first group being the energy providing foods like whole grain products/cereal and cereal products and fats and oils e.g. the baked products and cereal dishes. The second group is the body building foods such as meat and meat alternatives and milk and milk products, for example, fried/grilled/roasted chicken, beef, mutton and pork. Thirdly, there are the protective foods that maintain health, the fruit and vegetable products for vegetable dishes and salads. The food items chosen seem to show knowledge of the basic food groups which are learned at school from primary school level in Health Education and Natural Science, as well as at high school in subjects such as Home Economics and Consumer studies and then culturally transmitted as information from generation to generation. Culture is, however, a major determinant of what foods people accept and use (Reed *et al.*, 2003; Opare-Obisaw, Fianu, Dag & Awadzi, 2000; Rozin, 1996; Johns & Kuhnlein, 1990; Shepherd 1987). The individual's values, attitudes, beliefs and knowledge components help them to choose food from among those that are available and culturally acceptable (Whit, 1993; Sims, 1981). It is possible that respondents were not familiar with some of food items used as examples in the questionnaire (see Appendix A, Section B, question 17 and variables number 25-75) where it gave information on convenience foods in the convenience food category A.

- **Frequency of use of convenience food items in Category B: Fully prepared ready to eat convenience foods requiring only mild heating before consumption.**

Figure 4.16 presents the frequency of consumption of convenience food items which were included as examples of convenience food products in this convenience food category B.

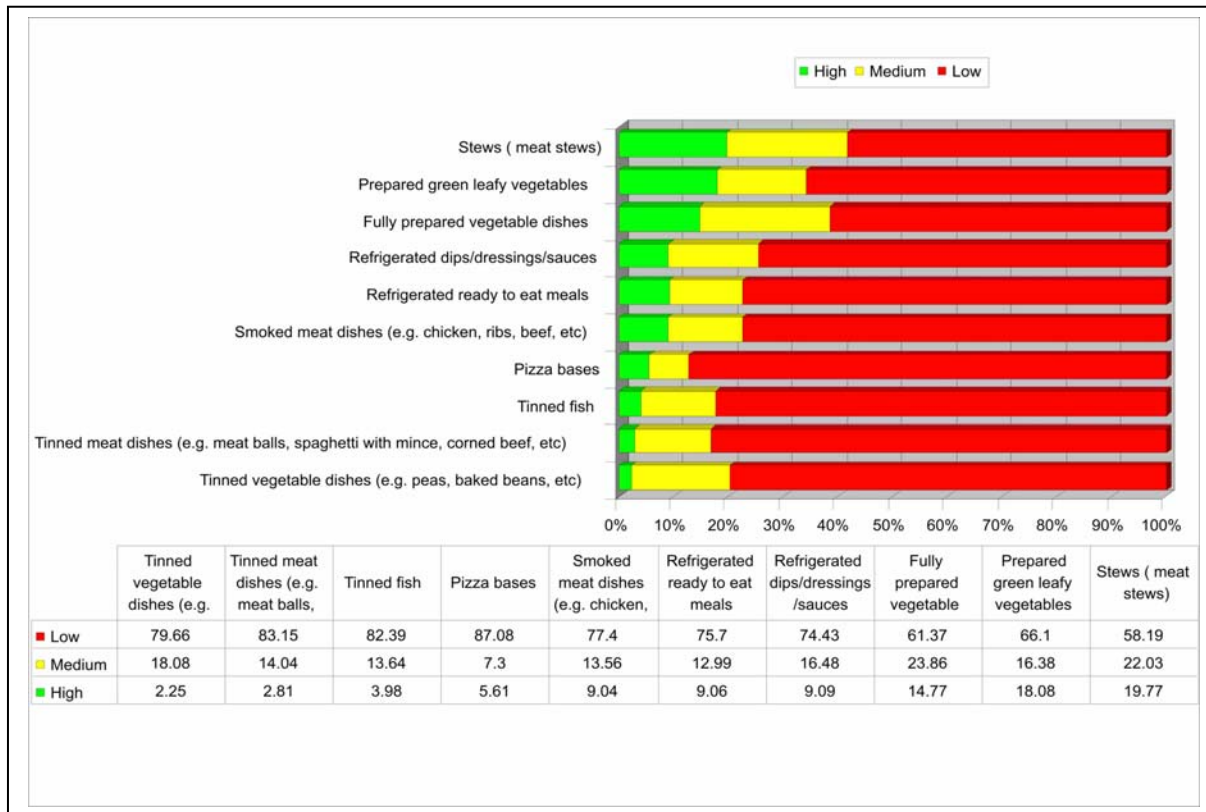


Figure 4.16: Consumption frequency in convenience food category B

The results of the frequency of consumption of the convenience food products in category B, generally show a low (0 to 2 times a week) rate of consumption by more than 50% of respondents for all the food items presented as examples in the category (see Figure 4.16).

Convenience food products with a medium (3 to 4 times a week) consumption rate of more than 20% of the respondents were fully prepared vegetable dishes with 23.86% respondents and stews (meat stews) with 22.03% of the respondents (see Table 4.1 on page 98).

Of the 178 population of black women employed by government in Mpumalanga used as the sample population for this study, only about 19.77% and 18.08% of the respondents reported a high consumption rate (5 to 6 times and every day of the week) of stews (meat stews) and prepared green leafy vegetables respectively (see Figure 4.16). This however, is a fairly small percentage of the respondents as it is below 20%.

No food item in this convenience food category B had a high frequency rate of consumption of 20% or more. A medium frequency of consumption was recorded for two convenience food items, meat stews and prepared green leafy vegetables. The choice of food items in this category is related to the choice of food items made in category A. It appears that respondents were usually influenced by their regular food related life-style that made them feel secure when eating foods familiar to them (De Boer *et al.*, 2003) and culturally acceptable (Parraga, 1990).

The food items in category B generally showed a low frequency of consumption (LFC). One of the reasons could be that some food items included as examples in this category required a tin opener or even heating time which working women might not have. The cost of convenience foods could also be a reason for the low frequency of use of certain products as they are usually a bit expensive.

- **Frequency of use of convenience food items in Category C: Partially or fully prepared convenience foods that need additional ingredients e.g. milk or hot/boiling water or salad dressing, which after mixing or cooking are ready to eat**

Figure 4.17 illustrates the consumption frequency of convenience food items that were included as examples of convenience food products in convenience food category C.



Figure 4.17: Consumption frequency in convenience food category C

Out of the total sample population of 178, the majority, more than 50% of the respondents indicated a low consumption frequency of 0 - 2 times a week for nine convenience food items included as examples in this convenience food category B (see Figure 4.17).

Food products that showed a medium frequency (at least a 20%) of consumption (3 to 4 times a week) in this category were vegetable salad ingredients, instant sauces and instant soups by 27.12%; 23.86% and 21.02% of the respondents respectively (see Table 4.1 on page 98).

Breakfast cereals (Figure 4.17) showed a high frequency of consumption (5 to 6 times and every day of the week) by 51.71% of the respondents whereas a medium consumption frequency (3 to 4 times a week) was as well represented by 21.59% of the respondents. It can be concluded therefore that breakfast cereals were the most highly consumed convenience food product in this category. This could be because working women, due to their hurried lifestyles,

do not have enough time to prepare breakfast meals from scratch in the morning as they are rushing to go to work. The food items consumed by respondents from this convenience food category depict the same pattern followed by the choices made in category A and B, namely, food choices seem to be made with the knowledge of the basic food groups to fulfill nutritional needs (not tested, researchers' observation). It can also be deduced that the foods accepted and used are those that the respondents are familiar with and are culturally accepted. Furthermore, it is likely that the food items preferred are those that do not need elaborate skill, knowledge and time in preparation. From the researchers' observation these food items are more affordable as well.

- **Frequency of consumption/use of convenience food items in Category D: Partially prepared ready to cook, bake or fry convenience foods that have been minimally prepared for cooking but still require full cooking of some or all of their components.**

Figure 4.18 presents the consumption frequency of convenience food items included as examples of convenience food products in this convenience food category D.

Nine out of the ten convenience food items included as examples in this category had a low frequency of consumption (0-2 times a week) as indicated by more than 50% of the respondents (see Figure 4.18 and Table 4.1 in page 98). Food items with a medium frequency of consumption (3 to 4 times a week), as indicated by more than 20% of the respondents, were pre-cut frozen vegetables (31.46%), crumbed frozen fish/sea foods (21.59%) and crumbed frozen or refrigerated meat portions (20.9%). Of the total sample of 178 black working women only 23.59% and 20.79% indicated a high consumption rate (5 to 6 times and every day of the week) of cleaned/peeled ready to cook vegetable items and pre-cut frozen vegetables respectively.



Figure 4.18: Consumption frequency in convenience food category D

The same pattern as for categories A, B and C emerged. Cereal/starch, protein and/or vegetable food items/dishes were chosen in this convenience food category D. Food item decisions seemed to be made with the knowledge of the basic food groups and familiarity with the product.

From the results of the analysis of responses concerning category D convenience foods, it is clearly seen that frozen food items had a low frequency of consumption (0 to 2 times a week) by black women employed by government in Mpumalanga. This, however, might be due to the fact that frozen food items need more time to thaw, cook and need more elaborate methods of cooking requiring knowledge and skill of cooking on the part of the food preparer. From the researcher’s observation these food items are more expensive as well.

The results suggests that the consumption frequency of convenience foods from

the four convenience food categories by black women employed by government in Mpumalanga was low for a number of the convenience food items included as examples in each convenience food category in the study. Notable was that, out of the ten convenience food items in category A, C and D, nine indicated a considerably low frequency of consumption by a maximum percentage of 85.39% and a minimum of 56.5% of the respondents. This is a very high percentage that confirms a low consumption frequency of use of the convenience food items in these convenience food categories. Category B showed a low frequency of consumption of all the ten convenience food items with a maximum of 87.15% and a minimum of 58.19% of the respondents, thus affirming a low frequency of consumption of all the food items included as examples in the category (see Figures 4.15 – 4.18) by a certain number of the respondents. Though certain convenience foods are consumed at a low rate there are as well those that are consumed at a high and moderate rate by more than 20% of the respondents (see Table 4.1 on page 98).

Table 4.1 presents the convenience food items that indicated a medium and high frequency of consumption by more than 20% of the respondents.

It is interesting to note that, though certain food items in the four convenience food categories are not frequently consumed by a reasonable number of the respondents, four food items in both categories A and C were identified. From Category A (fried/grilled/roasted chicken, beef, mutton, pork; fully prepared vegetable dishes; cereal dishes and fully prepared refrigerated salad) were selected and from C (vegetable salad ingredients; instant sauces; breakfast cereals and instant soups). These were regarded as moderately consumed by between 20% and 30% (a minimum of 20.22% and a maximum of 27.12%) of the respondents of which is quite a reasonable percentage to accept as a valid finding. Category B had only two (fully prepared vegetable dishes and meat stews) from the ten convenience food items that indicated a medium frequency of consumption by a minimum of 22.03% and a maximum of 23.86% of the

Table 4.1: High and moderately consumed convenience foods: categories A - D

Convenience food category	Convenience food items and their frequency of consumption percentages			
	MFC Convenience foods	%	HFC Convenience foods	%
A	Fried/grilled/roasted chicken, beef, mutton, pork	25.57	Baked products i.e. bread, bread rolls, doughnuts, sandwiches etc.	57.06
	Fully prepared refrigerated salads	21.18	Cereal dishes	23.16
	Cereal dishes	20.44		
	Fully prepared vegetable dishes	20.22		
Total A	4		2	
B	Fully prepared vegetable dishes	23.86		
	Stews (meat stews)	22.03		
Total B	2		0	
C	Vegetable salad ingredients	27.12	Breakfast cereals (e.g. corn flakes, rice crispies, etc.)	51.71
	Instant sauces	23.86		
	Breakfast cereals (e.g. corn flakes, rice crispies, etcetera)	21.59		
	Instant soups	21.02		
Total C	4		1	
D	Pre-cut frozen vegetables	31.46	Cleaned/peeled ready to cook vegetable items	23.59
	Crumbed frozen fish/sea foods	21.59	Pre-cut frozen vegetables	20.79
	Crumbed frozen or refrigerated meat portions	20.90		
Total D	3		2	

respondents. Convenience food category D showed a medium frequency of consumption of three convenience food items (pre-cut frozen vegetables; crumbed frozen fish/sea foods and crumbed frozen or refrigerated meat portions) with a minimum of 20.90% and a maximum of 31.46% of the respondents.

Despite evidence of a low consumption frequency of certain convenience food items in each category, it is noteworthy that a representative group of black working women employed by government in Mpumalanga do consume, at a high

frequency rate, at least two convenience food items in the convenience food categories A, baked products and cereal dishes, and D, cleaned/peeled ready to cook vegetable products. This was confirmed by a minimum of 20.79% and a maximum of 57.06% of the total percentage of the respondents. Convenience food category C had only one convenience food item (breakfast cereals) with a high frequency of consumption by 51.71% of the respondents. Category D had no food item with a high frequency of consumption.

It is evident from the above results that certain convenience foods from each convenience food category are well accepted and used by respondents in the survey, the most preferred ones being those that take little or no time to prepare. A positive link between working women and the acceptability and use of certain convenience foods in the four convenience food categories was evident in this study. This therefore substantiates the study done by Kok (2003) on the perceptions of career women in the purchase characteristics of certain convenience foods.

The women who participated in this study are usually time pressured as they spend much time at work and have to manage both work and household chores therefore have to use convenience foods for time relief in food preparation. This concurs with the findings of other researchers on the use of convenience foods by working women (Enslin, 2006; Jabs & Devine, 2006; Brown, 2005; Cant *et al.*, 2002; Connors *et al.*, 2001; Walker & Charlton, 2001; Sobal, 2000; Levin *et al.*, 1999).

Another possible reason could be that working women would only like to spend about 30 minutes preparing meals (see par.4.3.1.13 and Figure 4.13), (Candel, 2001; Bock *et al.*, 1998). Kok (2003) substantiated this statement by contending that working women have a mission to simplify their lives in order to spend quality time at home hence their use of convenience foods which are perceived as food products that help working women economise on the time devoted to the

performance of meal planning and preparation. The respondents in this study accepted and used convenience foods that needed less time and less skill in preparation.

Convenience foods from the fourth convenience food category, D, were not a popular option chosen by the Mpumalanga sample of black working women. This could be due to the fact that food products from this category needed more preparation time when compared to those in the first three convenience food categories A, B and C. This finding substantiates the statement of Gofton (1995) that working women do not even have time to bake a cake or prepare a meal from scratch.

The above results on the acceptability and use/consumption of convenience foods by the working women who participated in the study, confirm the findings of previous researchers (Enslin, 2006; Brown, 2005; Kok, 2003; Cant, *et al.*, 2002; Costa *et al.*, 2001; Capps & Park, 1997; Bonke, 1996; Madill-Marshall *et al.*, 1995). They too showed that households with working wives/women consume, amongst others, more time saving goods, especially convenience foods. Other research has shown that the greater the involvement with work, and the longer hours spent in employment away from home, the more likely the use of convenience food products and consumption of meals purchased outside the home, due to time scarcity (Madill-Marshall *et al.*, 1995). In the same vein, Verlgh and Candell (1999), in their research, found that respondents with paid jobs were users of convenience foods. Research on consumers' convenience orientation towards meal preparation found that convenience orientation was positively related to working outside the home and role overload (Candel, 2001).

4.4.2 The influence that sensory attributes have in the use of convenience foods in the different convenience food categories (Objective 2)

In determining which sensory attributes contribute to the acceptance and use of

certain convenience food items in the different convenience food categories, respondents were asked to rate the sensory attributes of the food items using a degree of importance scale. Respondents' views on each sensory characteristic were considered according to the following scale of the degree of importance.

Option	Explanation	Code
1	Of no importance	no
2	Of little importance	li
3	Important	Im
4	Very important	Vi

In this section of the empirical study only two convenience foods from each convenience food category with a high or medium frequency of consumption rate in a week will be analysed and discussed with regard to the possible effect of each of the sensory attributes on its acceptability and use. Only two food items are discussed for convenience purposes and length of this research report. To analyse the importance of each sensory attribute the 'very important' and 'important' row values were used to determine which sensory attributes have an influence. The results obtained are presented in Figures 4.19 – 4.22.

- **Determining which sensory attributes have an influence in the acceptability and use of convenience foods in the convenience food category A**

Figure 4.19 presents the degree of importance of each sensory attribute considered during the choice and use of the different convenience food items used as examples in category descriptions. The views of respondents on each of these were obtained and combined to give an entire impression.

It is clear (Figure 4.19) that the majority of the respondents rated the five sensory attributes as important and very important in their acceptability and use of the

convenience food items included as examples in convenience food category A.

Baked products such as bread, bread rolls, doughnuts and sandwiches in this category of convenience foods indicated a high frequency of consumption/use by most respondents. When looking at the degree of importance of each of the five sensory attributes, it was discovered that taste was rated as the very important sensory attribute with 112 (62.92%) of the respondents followed by flavour with 104 (58.43%) respondents who indicated very important, appearance had 103 (57.87%) of the respondents who indicated the sensory attribute as being very important. Texture rated very important as well on the degree of importance scale with 98 (55.37%) respondents and smell rated very important as well with 94 (52.81%) respondents. Therefore, all the five sensory attributes were seen as very important considerations when choosing, buying and using baked products.

In the case of fried/grilled/roasted chicken, beef, mutton, pork, taste too was regarded as a very important sensory attribute when considering its use as indicated by 105 (59.32%) of the respondents. Similarly, flavour was rated highly as a point of concern by 95 (53.98%) of the respondents in the use of a food product as was smell, almost equally by 93 (52.54%) of the respondents. Appearance and texture too, were acknowledged as being 'very important' in the choice and use of the food item by 85 (48.02%) and 80 (45.45%) of the respondents respectively. Taste, flavour, smell and appearance were rated as very important by the majority of respondents for fried/grilled/roasted chicken, beef, mutton and pork frequently and only texture was rated as important in the degree of importance scale by most respondents.

Therefore it can be deduced that in this category A (fully prepared ready to eat convenience foods, consumed as purchased requiring no prior preparation), all five sensory attributes were considered as very important. The degree of importance scale was applied to two of the frequently and moderately used convenience food items, namely, baked products, bread, bread rolls, doughnuts,

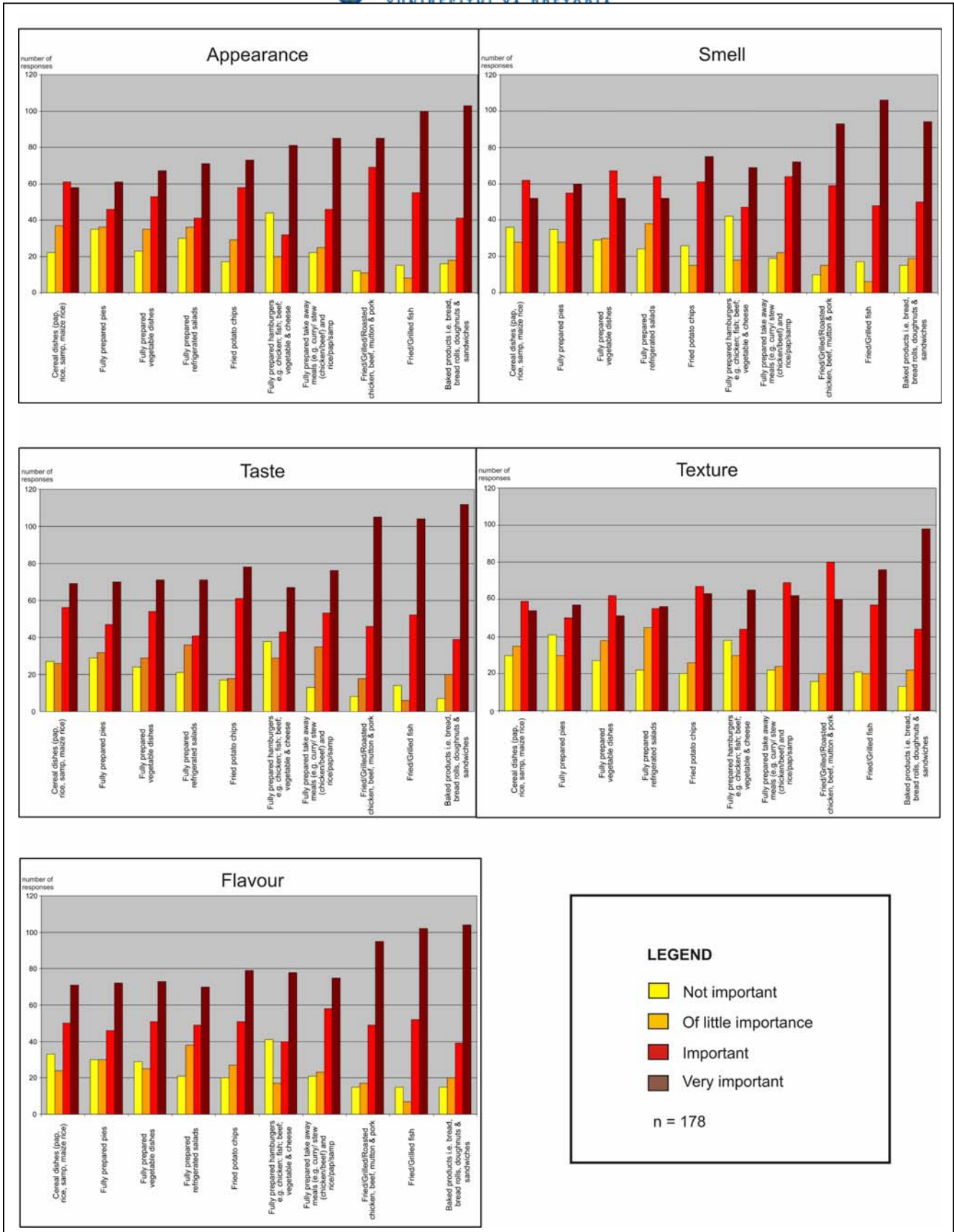


Figure 4.19: Sensory attributes influencing the use of convenience foods in category A

sandwiches and fried/grilled/roasted chicken, beef, mutton, pork to support this claim.

- **Determining the influence that the sensory attributes have in the acceptability and use of convenience foods in the convenience food category B**

In this category B, fully prepared vegetable dishes and stews (meat stews) are analysed and discussed with regard to the influence of the five sensory attributes on their acceptability and use by a representative sample of black women employed by government in Mpumalanga.

Regarding fully prepared vegetable dishes, 87 (48.88%) of the respondents viewed taste as very important and 83 (46.63%) of them saw flavour as very important on the importance scale of the sensory attributes for the above food item (see Figure 4.20). Seventy eight (43.82%) of the respondents viewed appearance, 73 (41.01%) texture and 65 (36.52%) smell as very important on the importance scale of the sensory attributes when rating the sensory attributes on the acceptability and use of fully prepared vegetable dishes. Therefore, all five sensory attributes are viewed by working women as being very important in their acceptance of fully prepared vegetable dishes.

For stews (meat stews), on the degree of importance scale of the sensory attributes, taste was rated by 105 (58.43%) respondents as being very important and flavour was a close second, rated by 104 (58.43%). Appearance was rated by 101 (56.74%) respondents, smell by 91 (51.12%) and texture by 78 (43.82%) respondents who found these sensory attributes as being very important in their acceptance and use of stews (meat stews). Therefore, working women found all the five sensory attributes as being very important in their choice, acceptance and use of meat stews.

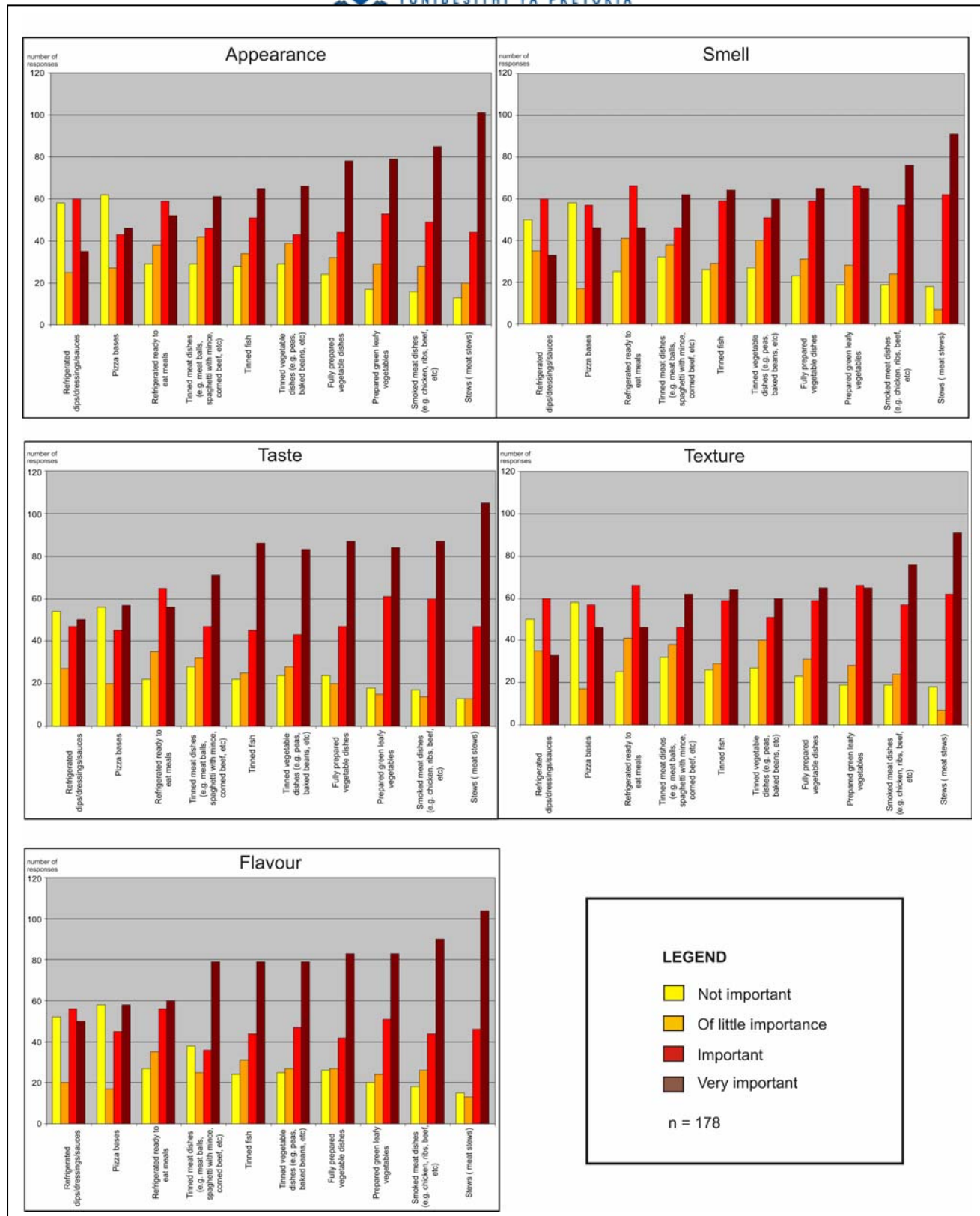


Figure 4.20: Sensory attributes influencing the use of convenience foods in category B

It can be inferred, therefore, that, in this convenience food category, B, all five sensory attributes are considered as very important in the acceptability and use of convenience foods in the specific food items of this category.

- **Determining the influence that the sensory attributes have in the acceptability and use of convenience foods in the convenience food category C**

Breakfast cereals and vegetable salad ingredients are analysed and discussed in this section with regard to which sensory attributes contribute to their acceptance and use.

Regarding breakfast cereals, 101 (56.74%) as well as 101(56.74%) of the respondents viewed taste and flavour as very important respectively on the importance scale of the sensory attributes. Appearance had 82 (46.07%), smell had 78 (43.82%) as well as texture which had 74 (41.57%) of the respondents who thought these sensory attributes were very important in their acceptance and use of breakfast cereals (see Figure 4.21). Therefore, all five sensory attributes are very important in the acceptance and use of this food item.

For vegetable salad ingredients of the total sample population, 80 (45.20%) of the respondents indicated taste as being very important on the degree of importance scale. Seventy seven, (43.50%) also found appearance to be very important and 79 (44.63%) of the respondents named flavour as being very important as well.

There were a number of respondents (77; 43.50%) who felt that texture was important and another group (69; 38.98%) of respondents recognised smell as important as well. Therefore, most respondents considered the five sensory attributes as very important in their acceptance and use of this food item.

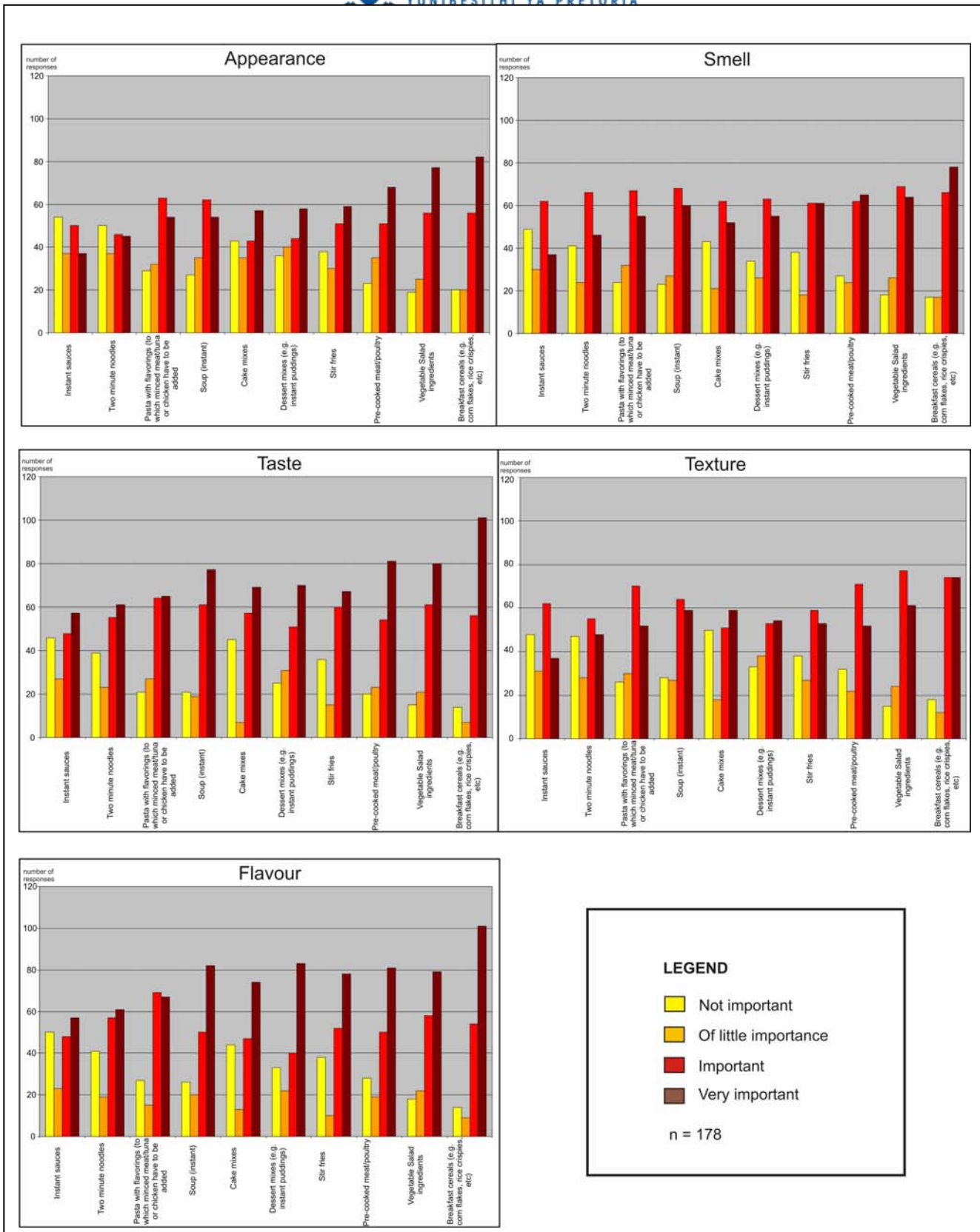


Figure 4.21: Sensory attributes influencing the use of convenience foods in category C

It can, however, be deduced that, in this convenience food category, all five sensory attributes are considered as being very important by the sample black working women in Mpumalanga in this survey on their acceptance and use of the convenience foods in this category.

- **Determining the influence that the sensory attributes have in the acceptability and use of convenience foods in the convenience food category D**

The two convenience food items to be analysed and discussed in this category, D are pre-cut frozen vegetables and crumbed frozen fish/sea foods. Pre-cut frozen vegetables were rated as equally as very important for flavour and texture by 80 (44.94%) of the respondents. On the same importance scale, smell, together with taste, scored a rating of important from 73 (41.02%) of the respondents. Appearance had 72 (40.45%) of the respondents rate it as being important to the acceptability and use of pre-cut frozen vegetables (see Figure 4.22).

Therefore most respondents found all the sensory attributes as being important in the acceptability and use of pre-cut frozen vegetables.

For crumbed frozen fish/sea foods, of the total number of respondents, 89 (50.00%) of them rated flavour as being very important for the acceptability and use of the convenience food product. Taste was also rated as very important by 87 (48.88%) of the respondents, appearance had a rating of very important by 73 (41.01%) respondents, smell got a very important rating by 70 (39.33%) respondents and texture had very important rating with 67 (37.64%) of the respondents. All the five sensory attributes were found to be very important in the acceptability and use of crumbed frozen fish/sea foods (see Figure 4.22).

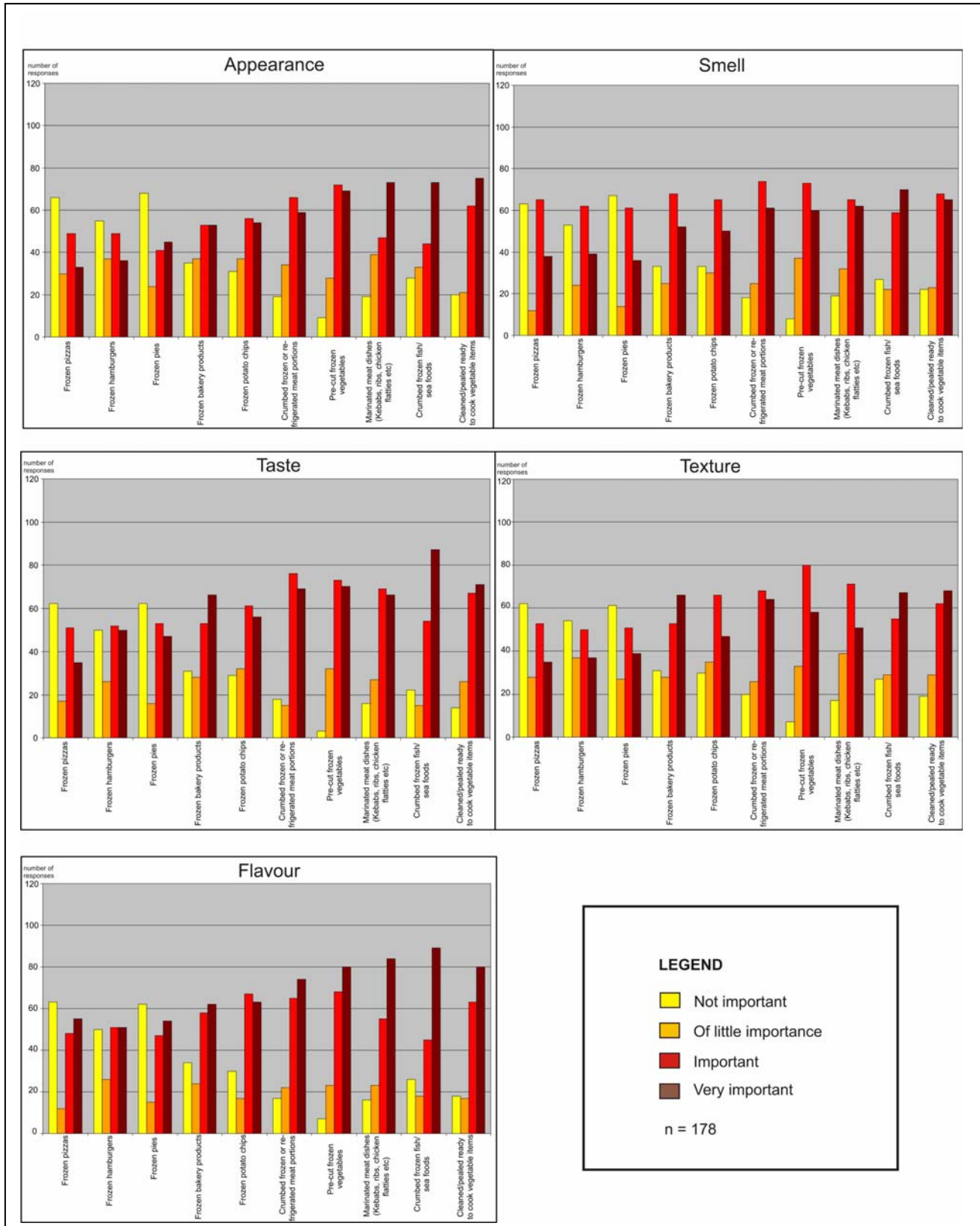


Figure 4.22: Sensory attributes influencing the use of convenience foods in category D

It can be deduced, therefore, that in this convenience food category, D, all five sensory attributes are considered as very important during the acceptance and use of the convenience foods in this category.

From this discussion and interpretation of the results of this particular survey, it is clear that the sensory attributes, appearance, taste, texture, smell and flavour are viewed by black working women in Mpumalanga as very important in their choice, acceptability and use of convenience foods. According to McKee and Harden (1990), the above sensory attributes are the first factors to influence food acceptability and use. Ahlgren *et al.*, (2005) in their study of the impact of meal situation found that one important reason for the increase in the consumption of convenience foods was the issue of the product's taste and appearance. These comments correspond well with the results of this research study.

Researchers' arguments that sensory attributes serve to attract consumers' attention and influence their decision on whether to buy the food product or not has been substantiated in this research study as sensory attributes create the first impression encountered by food consumers. Appearance constitutes the first sensory impression of the food product, then texture followed by the smell/aroma and then the taste/flavour of the food (Blades, 2001; Hamilton *et al.*, 2000; Imram, 1999; Shepherd & Sparks, 1994; McKee & Harden, 1990; Krondl & Coleman, 1988).

It is feasible to assume that the above five sensory attributes do influence the choice, acceptance and use of convenience foods by black women employed by government in Mpumalanga.

4.4.3 The influence that resources have on the acceptance and use of convenience foods (Objective 3)

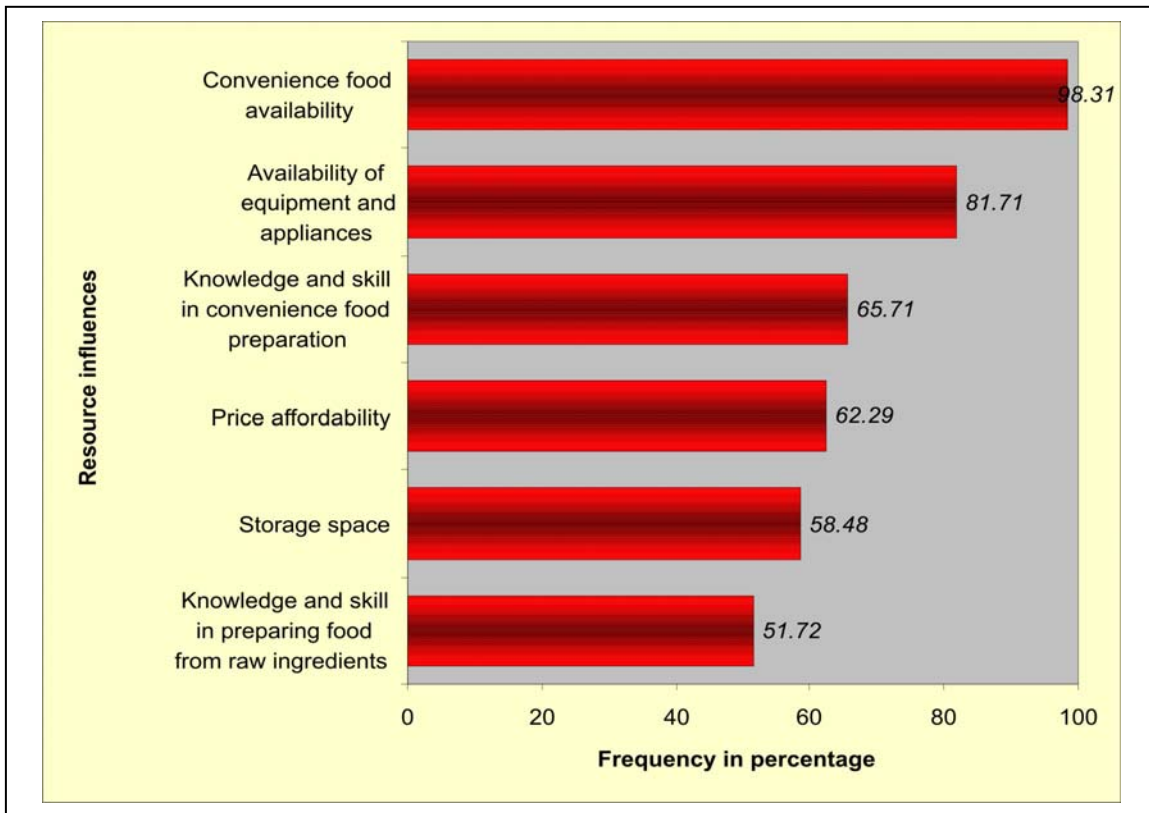


Figure 4.23: Frequency distribution of the influence of resources on the acceptability and use of convenience foods

In measuring the influence that resources have in the acceptability and use of convenience foods, respondents were requested to agree (yes) or not to agree/disagree (no) with particular resource statements on resource use. The yes responses indicated that, the particular resource had an influence on the acceptability and use of convenience foods.

From Figure 4.23, it is evident that the availability of the convenience foods is the most important factor contributing to their acceptability, as confirmed by 174 (98.31%) of the respondents. Availability of equipment and appliances too were seen by 143 (81.71%) of the respondents as being important issues that would

affect the acceptability and use of convenience food products. One hundred and fifteen of the respondents (65.71%) highlighted that their knowledge and skill in convenience food preparation does influence their use of convenience foods. Price affordability was important for 109 (62.29%) of the respondents. One hundred (58.48%), of the respondents felt that storage space was a consideration in their use of convenience foods. Only 90 (51.72%) of the respondents agreed that knowledge and skill in preparing food from raw ingredients had an influence on their use of convenience foods.

From this discussion of the results and their interpretation, it has become clear that price affordability, availability of storage space, equipment and appliances, knowledge and skill in convenience food preparation and lack of knowledge and skill in preparing food from scratch using raw ingredients are resources that affect the acceptability and use of convenience foods. More than 50% of the respondents rated all the above resource statements as having an influence on their acceptance and use of convenience foods.

Furst *et al.* (1996) contend that food consumers are very sensitive to issues such as food availability and price reductions when deciding what food products to choose, accept and use. However, ultimately it is what the individual wants.

Food availability and food price, as well as the means to purchase the convenience and other food products, are powerful determinants of food choice, acceptance and use. People usually eat what is available and affordable. Because working women have financial power, they are generally in a position to be able to purchase available convenience foods.

This study endorses the premise that tangible resources such as money, equipment and space as well as intangible resources such as skills, knowledge and time have a great influence on the use of convenience foods (Brown, 2005; Kok, 2003). From the demographic information of the working women participating

in this survey, it was evident that they are in possession of all the above critical tangible and intangible resources (see par.4.3.1.3; 4.3.1.6-4.3.1.7; 4.3.1.13-4.3.1.16) which would enable them to accept and use available convenience foods.

From the researchers' observations on the availability of convenience food products from the food outlets where the working women purchase their convenience foods, it was obvious that a variety of convenience foods were available at these food outlets, so were accessible to the working women. The majority (the most being 174, 98.31% out of 178 respondents and the least being 90, 51.72% out of 178 respondents) of the respondents agreed that all the above resource statements had a positive influence on their acceptance and use of convenience foods.

4.4.3.1 The extent to which there is a relationship between the amounts of money spent per month in the household for food purchasing and the use of convenience foods

The relationship between the money spent on food purchasing by the black working women and their use of convenience foods from the different convenience food categories, was determined by means of a chi-square test. The relationship of the first frequently used convenience food as a variable in each convenience food category was used to establish its relationship with certain other variables. Only one category was analysed and discussed as an example to show the relationship as the data for all the four convenience food categories yielded the same results (finding no significant relationship between the variables).

The variables were discussed according to the relationships they have with each other. The chi-square test statistics and the p-values will be shown in a tabular form for the variables. The aspects that have a p-value equal to or less than 5% show a significant relationship with the variable with which it is related.

- A significant relationship between the amount of money spent on food per month as a resource and the use of convenience foods

Money spent versus use of convenience foods

The following hypotheses were tested:

The Null hypothesis tested was:

H0: There is no relationship between the amount of **money** spent on food per month and the use of **convenience foods**. That is, no relationship exists between the values of these two variables. The **convenience food** example used from category A was **baked products** as independent.

The alternative hypothesis was:

H1: There is a significant relationship between **money** spent on food per month and the use of **convenience foods**. That is, a statistically significant relationship exists between the values of these two variables. The **convenience food** example used from category A, was baked products as dependent.

Table 4.2: An indication of a significant relationship between money spent on food per month and the use of convenience foods

Convenience foods (Baked products)		
Variable	Chi-square Test Statistics	p-Value <0.05
Money	0.4422	0.5061

Fisher's Exact Test: Table Probability (p) 0.1129

In Table 4.2, the chi-square statistics is 0.4422 with a p-value = 0.5061 which is >0.05 and thus the null hypothesis can not be rejected at a 5% level of significance based on the above result. It is concluded therefore, that the levels of the two variables analysed in the two way table are independent and therefore

no statistically significant relationship exists between them. Fisher's Exact Test as well proves that there is no relationship between the two variables; money spent per month on food and the use of convenience foods.

From the discussion of the results and the interpretation of the chi-square in Table 4.2 in this study it was evident through the chi-square test that there was no relationship between money spent on food purchasing per month and the use of convenience foods.

From the demographic information of the respondents it was evident that the working women spent a reasonable amount (R501 – R2 000) of money per month on food. This could appear to have a relationship towards convenience foods purchase as they tend to be a bit expensive. The Chi-square results contradicts Gofton's (1995) research findings that if the primary meal preparer was in paid employment, her rate of pay was directly and positively related to the rate of consumption of complex and manufactured convenience foods. It can be deduced therefore that respondents spend money on other food items and not only on convenience food products per se.

The lack of previous empirical findings pertaining to the relationship between money spent on food per month and the use of convenience foods by South African consumers warrants additional research.

4.4.4 The influence that the socio-cultural environment have on the use of convenience foods (Objective 4)

In measuring the influence of the social environment on the acceptance and use of convenience foods, respondents were requested to agree or not to agree with particular social environment statements. The 'yes,' responses indicated that, the particular social environment does contribute to or have an influence on the acceptability and use of convenience foods.

Figure 4.24 shows the results of the influence that selected aspects of the socio-cultural environment have on the use of convenience foods.

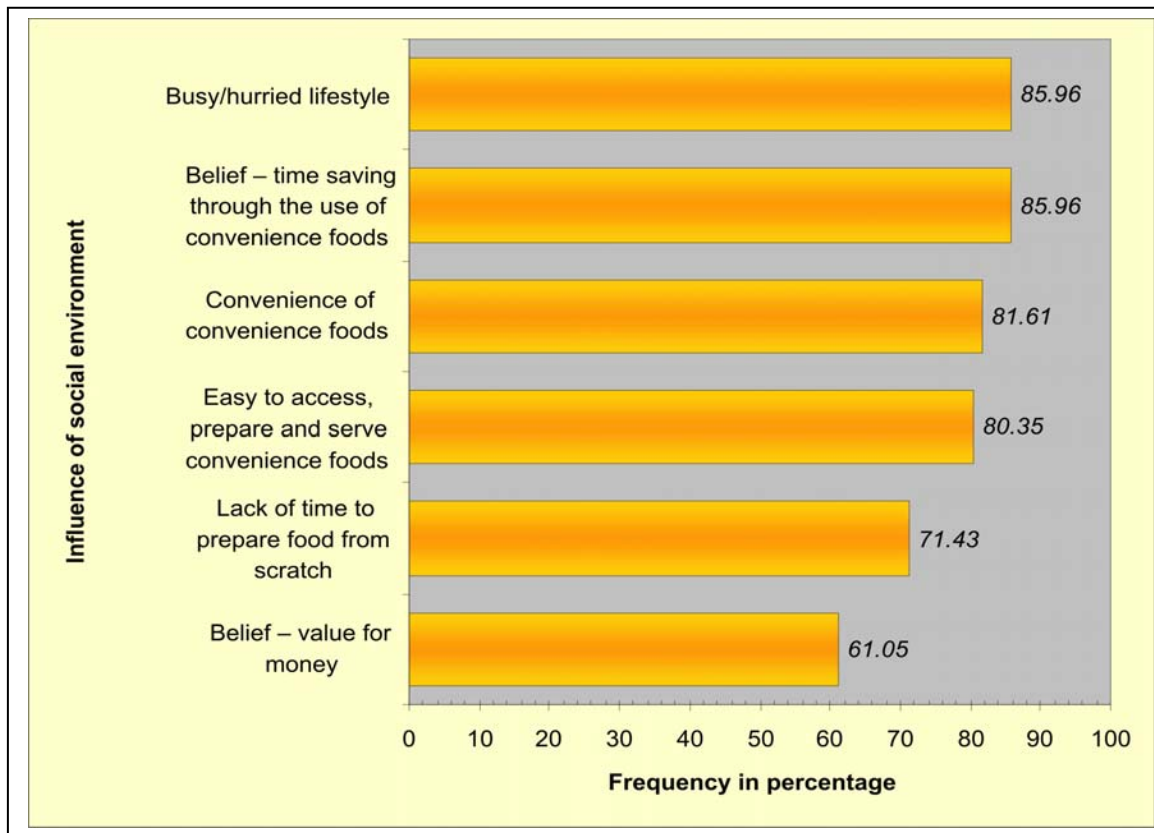


Figure 4.24: Selected aspects of the socio-cultural environment that may influence the use of convenience foods

From Figure 4.24, it is apparent that all the stipulated statements given in the questionnaire relating to the social environment do have an influence on the use of convenience foods as experienced by the group of black women employed by government in Mpumalanga who participated in this survey. One hundred and fifty three (85.96%) of the respondents viewed their use of convenience foods as being affected by their hurried lifestyle as well as by their belief that the use of convenience foods during meal preparation saves time (85.96%). Working women who agreed that the facility of having convenience foods available does influence them in their acceptance and use of convenience foods, numbered 142 (81.61%).

Of the 178 respondents, 139 (80.35%) of them, agreed that the ease of access, preparation and serving of convenience foods does influence them in their use of convenience foods. When asked whether lack of time to prepare food from scratch influenced them in using convenience foods, 125 (71.43%) of the respondents agreed. One hundred and five (61.05%) of the respondents agreed that they use convenience foods because they believe that they get value for their money.

Therefore, it can be inferred that more than 60% of the working women consulted, felt that the statements given about the social environment did influence their acceptance and use of convenience foods.

Whit (1993) contends that an individual's values, attitudes, beliefs and knowledge components help when choosing food from among those that are available and culturally acceptable. Lack of time on the part of working women is the least to argue about. Most of the working women intimated that there is not much time to eat and even less for shopping and cooking (Jabs & Devine, 2006; Brody & Lord, 2001; Hollingsworth, 1997). Ahlgren *et al.* (2005) in their research found that most of their respondents reported that they required less than 10 minutes for preparing and eating ready meals and a few who reported spending more than 30 min preparing and eating ready meals. Convenience foods bring more choice for the busy/hurried lifestyle of working women as time saving is an important characteristic of convenience foods (De Boer *et al.*, 2003). Therefore, poverty of time is highly associated with higher consumption of convenience foods, though food marketers cannot assume that the most time poor are a good target market for all types of convenience foods. Attributes other than convenience are also important to the very time poor and only certain types of convenience foods and in certain convenience food categories are used by the time poor consumers (Darien & Cohen, 1995).

Another research study found that the majority of working women generally lack cooking skills and thus opt for convenience foods instead of preparing meals from scratch (Senauer *et al.*, 1993).

4.4.4.1 *The extent to which there is a relationship between lack of time to prepare food from scratch and the use of convenience foods*

The relationship between lack of time and the use of convenience foods from the different convenience food categories was determined by means of a chi-square test. The relationship of the first frequently used convenience food as a variable in each convenience food category was used to determine its relationship with other variables in the study. For the sake of this study only one category was analysed and discussed as an example to show the relationship as the data for all the four convenience food categories yielded the same results (finding no significant relationship between the variables measured).

The variables were discussed according to the relationships they have with each other. The chi-square test statistics and the p-value will be shown in a tabular form for the variables. The aspects that have a p-value equal to or less than 5% show a significant relationship with the variable it is related to.

- **A significant relationship between lack of time to prepare food from scratch as a social environment and the use of convenience foods**

Lack of time versus use of convenience foods

The following hypotheses were tested:

The Null hypothesis tested was:

H0: There is no relationship between **lack of time** to prepare food from scratch and the use of **convenience foods**. That is, no relationship exists between the

values of these two variables. The **convenience food** example used from category A, was **baked products** (independent).

The alternative hypothesis was:

H1: There is a significant relationship between **lack of time** to prepare food from scratch and the use of **convenience foods**. That is, a statistically significant relationship exists between the values of these two variables. The **convenience food** example used from category A, was **baked products** (dependent).

Table 4.3: An indication of a significant relationship between lack of time to prepare food from scratch and the use of convenience foods

Convenience foods (Baked products)		
Variable	Chi-square Test Statistics	p-Value <0.05
Time	0.1751	0.6756

Fisher's Exact Test Table Probability (P) 0.1446

In Table 4.3, the chi-square statistics is 0.1751 with a p-value = 0.6756 which is >0.05 and thus the null hypothesis cannot be rejected at a 5% level of significance based on this result. It is concluded therefore, that the levels of the two variables analysed in the two-way table are independent and therefore no statistically significant relationship exists between them. Therefore, there is no relationship between lack of time to prepare food from scratch and the use of convenience foods. Fisher's Exact Test proves as well that there is no relationship between the two variables, lack of time and the use of convenience foods.

The above results substantiate Madill-Marshall *et al.* (1995) and Davies (1997)'s opinions that the relationship between time pressure and time saving behaviour are very complex. It can be inferred therefore that there are other reasons that

influence working women's use of convenience foods other than time pressures. Further research needs to focus on that.

In a study on role overload conducted by Reilly (1982) no association between time shortage and the use of convenience foods was found. This substantiates the results given in this section. However, an exception to this pattern is the consistent finding of this study that the working women who participated in this study did make considerable use of certain convenience food items because they lacked the time needed to prepare meals from scratch (see Table 4.3). Looking at this finding, it can be argued that women's employment may be a weak indicator of lack of time and those specific convenience foods may be used for reasons other than saving time. Reasons not associated with convenience, include options such as liking the sensory attributes displayed by the food, pleasing the family (Reilly, 1982), or for convenience-related reasons other than saving time, for example, less effort associated with having to plan meals for the whole family (Darian & Cohen, 1995; Brown & McEnally, 1993).

4.4.5 The occasion/situation during which convenience foods are used (Objective 5)

Figure 4.25 illustrates in descending order, the frequency distribution of the occasions or situations during which convenience foods are accepted and used by black women employed by government in Mpumalanga.

In measuring which occasion or situation has an influence in the acceptance and use of convenience foods; respondents were requested to agree or not to agree with using convenience foods at particular times or on specific occasions or situations. The 'yes', responses to a particular occasion/situation indicated that the respondent preferred to use convenience foods for that occasion or circumstance.

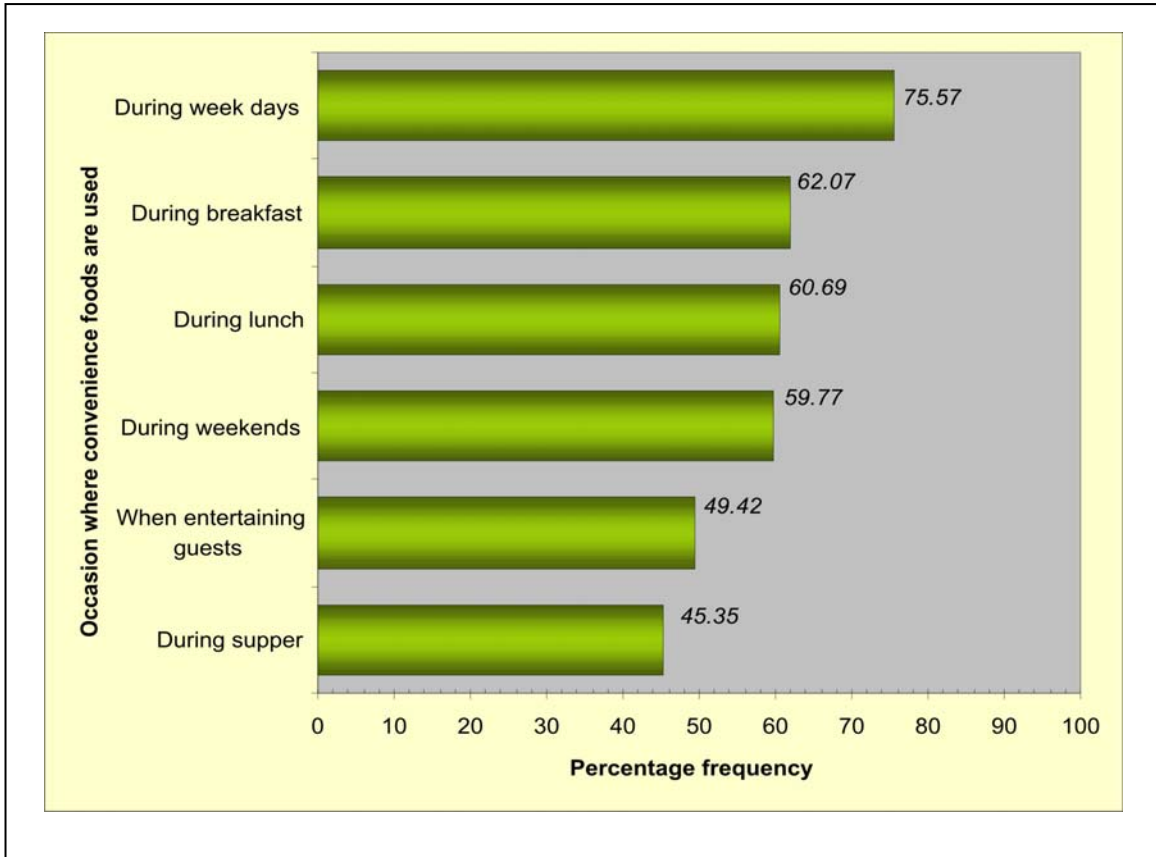


Figure 4.25: Frequency distribution for the occasion/situation during which convenience foods are accepted and used

In relation to the occasion or situation during which convenience foods are mostly used, most respondents, 133 (75.57%) of them, highlighted that they used convenience foods during the week. One hundred and eight (62.07%) of the 178 respondents used convenience foods for breakfast, 105 (60.69%) of the respondents agreed they used convenience foods during lunch time and 104 (59.77%) of the respondents used convenience foods over weekends.

It is clear as well that a reasonable number of the respondents, namely, 94 (54.65%) do not use convenience foods when preparing meals for supper. It can be concluded therefore that this number of respondents usually prepare food for their households using raw ingredients. Eighty seven (50.58%) of the

respondents did not use convenience foods when entertaining guests in their homes. Therefore it can be inferred that most of the respondents like to be original when preparing meals for guests as well as for the family for the evening meal.

In a study done by Ahlgren *et al.* (2005) it was found that two-thirds of the hot meals eaten at home, especially for supper and over weekends, were reported by the respondents to be home-cooked and only one-third were convenience foods or ready-made meals. The meal context was a factor often mentioned in his study on mealtimes as being important for the choice of eating habits and food products. Working women in this study have shown that their food choice, acceptability and use differ from situation to situation.

With a situation oriented approach, the food consumer is not seen as an individual but as someone who plays many roles in life and has different intentions and wishes in these different roles. That is, the roles of being a worker, mother and wife (Ahlgren *et al.*, 2005; Kok, 2003). For example a person expects a certain type of meal for a family dinner at home and something different for a dinner with friends. Different products are more or less appropriate for different situations and occasions.

From the discussion and interpretation of the results of this study, it is evident that working women mostly use convenience foods during week days, for breakfast, during lunch-time and over weekends. Working women use convenience foods on such occasions as they have little time to spend on food preparation because of their hurried lifestyle. During weekends they want to spend quality time with their families and friends as well as after work, thus have less time to prepare food by using raw ingredients.

When preparing meals for guests and family suppers, working women want to use fresh ingredients and prepare meals from scratch. This could, however, be due to

the fact that working women like to display to members of the family and guests that they do have the culinary knowledge and skills needed for food preparation.

In a study on the impact of meal situation, the most common meal contexts for ready meals as a form of convenience food were found to be, in order of frequency of use, dinner at home, lunch at work, lunch at home and dinner at work (Ahlgren et al., 2005). This study has found a different situation among the women holding in middle management positions in Mpumalanga. Most of the respondents in this study accepted and used convenience food products in the following meal contexts: In order of frequency, on week days (75.57%), for breakfast (62.07%), during lunch breaks at work (60.69%), over weekends (59.77%), when entertaining guests (47.75%) and for the evening meal (43.82%).

4.4.6 Convenience food outlets (Objective 6)

In identifying the main convenience food outlets used by black working women participating in this study, respondents were requested to give a 'yes' response if they generally purchased convenience foods at a particular food outlet.

From Figure 4.26, it was obvious most of the 178 respondents (173; 97.19%) buy their convenience food products from Pick 'n Pay, followed by Spar where 110 (62.86%) respondents were customers. Of the 178 respondents 94 (54.65%) purchase their convenience food products from Shoprite Checkers. Fewer than 50% of the respondents purchase their convenience food from Woolworths 82 (46.86%), Kwik Spar 65 (38.01%) and spaza shops 65 (38.01%). A small number, 48 (28.24%), purchase from street vendors and even fewer, 30 (17.44%), buy their convenience food from the OK.

Judging by the responses from the sample selected for this survey, the majority of the black working women in Mpumalanga tend to use Pick 'n Pay, Spar and Shoprite Checkers for their food purchasing activities. A few of the women

purchase their convenience foods from Woolworths, Kwik Spar, spaza shops and from street vendors.

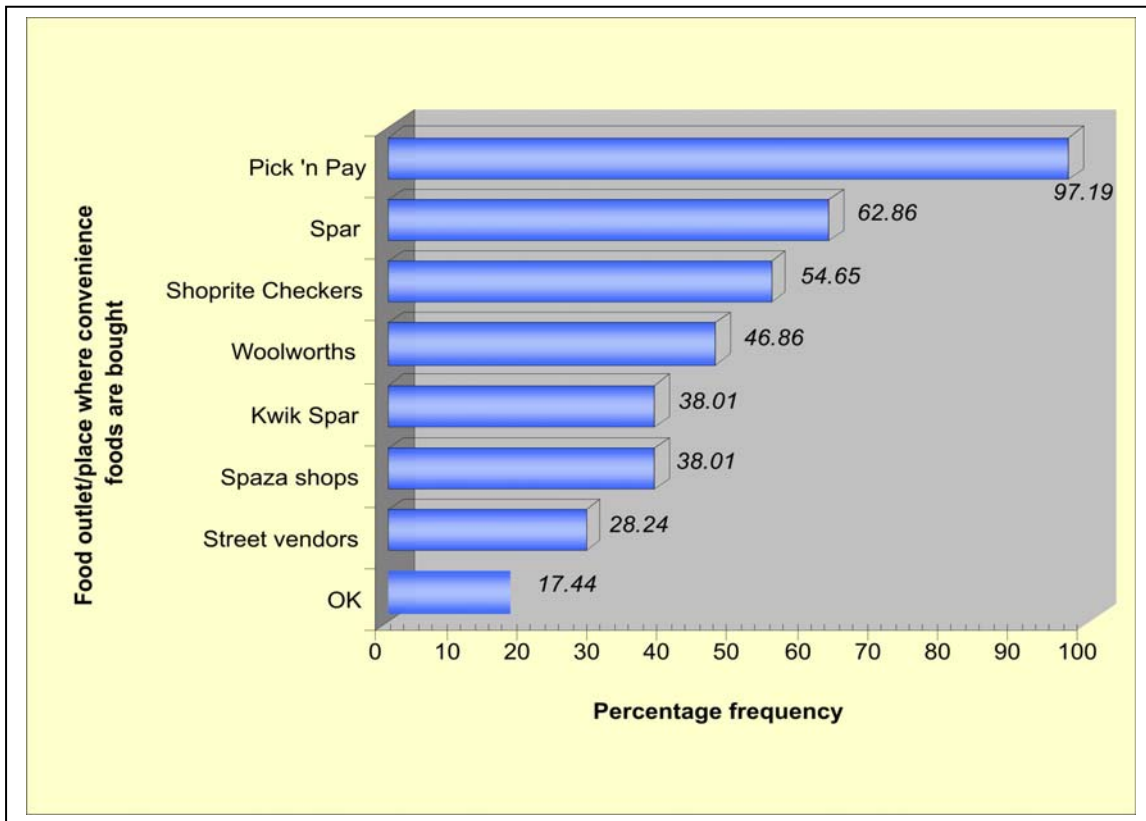


Figure 4.26: Frequency distribution of food outlets where convenience foods are purchased by black working women

The above results substantiate the findings of Du Plessis & Rousseau (2003) that people in the Living Standards Measures 6-10 category regularly shopped at Pick 'n Pay, Woolworths, Shoprite Checkers, Street vendors and other convenience stores.

From the researcher's observations, it was clear that Pick 'n Pay, Spar and Shoprite Checkers are the main food outlets used by the majority of the black women employed by government in Mpumalanga. All are located in the Riverside Mall which is very near, within walking distance of the Government Boulevard

Complex where the women work. It is likely that they purchase their groceries during lunch time or after work as the stores only close at 18:00.

4.5 OBSERVATIONS ON CONVENIENCE FOODS IN THE FOOD OUTLETS

The researcher visited the food outlets (mentioned in 4.4.6 and illustrated as Figure 4.26) frequently used by the working women who participated in this study. Convenience foods were freely available in all the food outlets including those listed in the four convenience food categories. Care was taken to check this it was encouraging to note that they were well displayed to attract the attention of the food purchasers. The packaging of the foods looked good and readily caught the eye of consumers. The appearance and the aroma of the fully prepared foods from the delicatessen were really appetising and enticing.

As the researcher watched the shopping behaviour of the customers, she noticed that the majority of the food purchasers used cash as well as debit cards (swiping of the debit card for payment). Most of the working women from the government complex purchased fully prepared convenience foods at lunch time more often than not. A few of them went to buy some convenience food products and other necessities after work. It was interesting to see that the women did not spend much time in the shop either during lunch time or after work, obviously because of time constraints, rushing to go back to work or rushing to go home.

4.6 SUMMARY

Discussion of the results of this study was presented in this chapter. The results were analysed and interpreted using quantitative calculations that were expressed as tables and graphic representations. The chi-square test was used to check the extent to which a relationship existed between money used for the purchase of food and the lack of time available for food preparation from scratch and the use of convenience foods.

Tables were not only important for showing the frequency distribution of responses from the respondents, but were also useful for demonstrating the rank order of the frequency of use and the degree of importance attached to the different sensory attributes considered to affect the decision made about the acceptance and use of convenience foods.

A low frequency (0 – 2 times a week) of the consumption and use by more than 50% of the respondents of convenience food items was evident in all the four convenience food categories A, B, C and D. A medium frequency of consumption by more than 20% of the respondents was evident for four convenience food items used as examples in categories A and C, for two convenience food items in category B and for three convenience foods in category C. Only two convenience foods showed a high frequency of consumption in the convenience food categories A and D as suggested by more than 20% of the respondents. Only one food item in category A was assigned a high consumption rating by 57.06% of the respondents. Category C had only one convenience food item with a high frequency of consumption rating according to 51.71% of the respondents.

Although respondents found resources and the socio-cultural environment (Figures 4.23 and 4.24) as affecting their use of convenience foods, Tables 4.2 and 4.3 indicate that there is no significant relationship between the use of convenience foods and each of the two variables money spent and lack of time. The p-values of more than 5% in Tables 4.2 and 4.3 showed that there is no relationship between the variables.

Chapter 5 will deal with the conclusions in relation to the terms of the objectives, the evaluation of methods used, suggestions for further investigation and research with recommendations arising from this study on the acceptability and use of convenience foods by black women employed by government in Mpumalanga.

CHAPTER 5

Conclusions, Evaluation and Recommendations of the Study

5.1 INTRODUCTION

This chapter presents conclusions that respond to the research problem stated and addressed in this study. Based on these conclusions, recommendations are made regarding the acceptability and use of convenience foods by black working women. An evaluation of the study research methodology in terms of the reliability, validity, ethics, data collection and achievement of the objectives of the study is included.

This study was undertaken with the aim of identifying and determining the frequency with which convenience foods in the different convenience food categories are used by black women employed by government in Mpumalanga. A quantitative research design was used for this study. The principle method of data collection was a self-administered questionnaire (see Appendix A). However, for triangulation purposes on the availability of convenience food products at the different food outlets where respondents purchased their food, a checklist was applied (see Appendix B). The analysis of the data and interpretation of the results was done in relation to the objectives set for the study, as set out in Chapter 3, par. 3.2.

A description of the general conclusions made for this study are given in the next section, followed by the evaluation of the study and presentation of suggested possibilities for further research. Finally, recommendations for the convenience food retailers are offered.

5.2 CONCLUSIONS

Conclusions with regard to the consumption frequency of convenience food products from the four convenience food categories (Objective 1)

From the discussion and interpretation of the results of the sample survey in chapter 4, it is clear that black working women tend to either use certain types of convenience foods in the four convenience food categories less frequent (not more than twice in a week) or to use certain types of convenience foods, frequently (3 -4 times in a week or 5 - 6 times and every day of the week). The results show clearly that there are relatively high proportions of working women (more than 56, 5% of the respondents) who are low users of almost each type of the convenience foods in the four convenience food categories except for baked products, cereal dishes, fried/grilled/roasted meat, and fully prepared refrigerated salads in category A; meat stews and fully prepared vegetable dishes in category B; breakfast cereals, vegetable salad ingredients, instant soups and instant sauces in category C and cleaned/peeled ready to cook vegetable items, pre-cut frozen vegetables, crumbed frozen fish/sea foods and crumbed frozen or refrigerated meat portions in category D (see Table 4.2, this table can be viewed together with Figures 4.15 – 4.18).

Several major patterns can be seen in the overall results. First, it is apparent that all the variables in the study have important links to convenience food usage, suggesting that decisions about the use of these products is intricately linked to the entire life situation i.e. work and family and circumstances of the working woman. Variables from the demographic information of the working woman such as, her education level, income, money available for food purchasing in a month, marital status, number of children and their ages, number of people preparing meals for, the meal preparation time during the week, weekend and when preparing meals for guests and the availability of time saving equipment and appliances in the

household. These variables showed a positive link towards the acceptability and use of certain convenience food products (see Figures 4.5, 4.7b, 4.8 4.14).

Secondly, it appeared from the study, that the convenience food items that showed a medium and high frequency of use are those that take less time and less skill in their preparation. Women who took part in this survey indicated that they would like to spend only about 30 minutes when preparing meals (see Figure 4.13 and Table 4.1).

Thirdly, it is evident from the results that cultural eating habits still persists amongst the black working women in Mpumalanga as women surveyed made choices of convenience food products that seem to be familiar to them and therefore culturally acceptable. The researcher observed that respondents also seem to make choices of food items based on knowledge of the basic food groups.

Finally, observed is that, the choices of the convenience food items in the different convenience food categories reveal that the convenience foods that are accepted are those that are cheaper (low in cost), for example, baked products, cereals, vegetables and breakfast cereals. The convenience food items that are less used are mostly those that are more expensive than their raw ingredient counter types (see Figures 4.15 – 4.18). Therefore it can be deduced that the cost of certain convenience food products have an effect on their acceptability and use.

**Conclusions with regard to the sensory attributes that contribute
to the use of convenience foods
(Objective 2)**

With regard to the investigation into the effect of sensory attributes, appearance, texture, smell and taste and flavour, the data yielded a decisive positive result. The results indicate that the respondents considered these factors as very important in their adoption of convenience foods.

It can be inferred, therefore that the five sensory attributes can be recognised as having positive influence in the choice, acceptance and use of convenience foods by black women employed by government in Mpumalanga. The reason for this, could be that sensory attributes create the first impression encountered by consumers to influence food acceptability and use as they serve to attract consumers' attention and influence their decision on whether to buy the food product or not.

**Conclusions with regard to the influence that resources have
on the use of convenience foods
(Objective 3)**

Resources specified in the research included the availability of convenience foods, price affordability, availability of storage space, the availability of equipment and appliances, knowledge and skill in convenience food preparation and lack of knowledge and skill in preparing food from scratch using raw ingredients. These resources in this survey have shown a great influence on the acceptability and use of convenience foods. For example more than 50% of the respondents rated all the given statements about resources as having an influence on their acceptance and use of convenience foods (see also Table 4.3).

It was evident in this study that food availability and food price as well as means to purchase the food are powerful determinants of food choices, acceptability and use. The working women surveyed have financial power, therefore are able to purchase the available convenience foods as per their own attributes. Similarly, tangible resources such as money, equipment and space as well as intangible resources such as skills, knowledge and time have a great influence on the use of convenience foods, which the working women in this survey have (see also Figures 4.5, 4.7b, and 4.8).

**Conclusions with regard to the influence that the socio-cultural environment has on the use of convenience foods
(Objective 4)**

From the results, it was evident that the social environment has a great influence in the acceptance and use of convenience foods by the black women employed by government in Mpumalanga participating in the survey. In order of frequency, the most common aspects of the socio-cultural environment specified in this study that had an influence on the use of convenience foods were:

- A busy/hurried lifestyle (85.96%);
- The belief about saving time through the use of convenience foods (85.96%);
- The handiness of convenience foods (81.61%);
- Easy access, preparation and serving convenience foods (80.35%);
- Lack of time to prepare food from scratch (71.43%); and
- The perception of value for money (61.05%).

It can be concluded therefore that more than 60% of the black women employed by government in Mpumalanga in this survey view the above social environment statements as having an influence on their acceptance and use of convenience foods.

**Conclusions with regard to the occasion/situation during which convenience foods are used
(Objective 5)**

Evidence from the survey conducted suggests that working women make substantial use of convenience foods on weekdays, for breakfast, at lunch-time, and over weekends. Working women use convenience food products on these

occasions as they have little time to spend on food preparation due to their hurried lifestyle. Over weekends they want to spend quality time with their families and friends as well as after work, thus have less time to prepare food from scratch using raw ingredients (see also Figure 4.13).

When preparing meals for guests and when preparing for supper, working women want to use fresh ingredients and prepare meals from scratch. It appears that working women would like to demonstrate to members of the family and guests that they do have knowledge and skills in food preparation.

In order of frequency, the majority of the respondents in this study accepted and used convenience food products during the following meal contexts: Weekdays (75.57%); breakfast-time (62.07%); lunch breaks at work, (60.69%); over weekends (59.77%); when entertaining guests (47.75%); and for supper (43.82%).

**Conclusions with regard to the convenience food outlets
used for food purchasing
(Objective 6)**

From the interpretation and discussion of the results, it is evident that, the majority of the black working women in Mpumalanga tend to purchase their convenience food products mostly from Pick 'n Pay, Spar and Shoprite Checkers. A few of the women purchase their convenience foods from Woolworths, Kwik Spar, *spaza* shops and from street vendors.

Pick 'n Pay, Spar and Shoprite Checkers are the main food outlets used by the majority of the black women employed by government in Mpumalanga as these food supermarkets are located in the Riverside Mall which is very near, within walking distance of the Government Boulevard Complex where the women work. It is likely that they purchase their groceries during lunch time or after work as the

stores only close later in the evenings. It can be concluded that the food outlets used by the women have all the convenience foods from the four convenience food categories used in the study.

5.3 EVALUATION OF THE STUDY

It is imperative that, on completion of the research procedure, a truthful and objective assessment of the research project be done. In this section, an evaluation of the investigation is presented, concentrating on the following:

- The research design
- The reliability of the study
- The validity of the study
- Ethics related to the study
- Data collection methods and their usefulness to other researchers
- The achievement of the objectives of the study
- Contribution to the theory of Consumer Science

5.3.1 Research design

As the research study aimed at exploring and gathering ideas and information on the use of convenience foods by black women employed by government in Mpumalanga, the study had to be exploratory and descriptive in nature. A quantitative research design was adopted as being appropriate and structured, with open- and closed-ended questions, questionnaires were used.

5.3.2 Reliability

The reliability of a research instrument refers to the extent to which research findings would be the same if the research instrument were to be used at a later stage to the same object (Babbie & Mouton, 2001; Neuman, 2000; Key, 1997; Mouton, 1996).

The reliability of this study was maintained by conducting a pilot study by pre-testing the questionnaire after it had been evaluated and refined by experts from the Consumer Science Department and Statistics advisors at the University of Pretoria. The revised questionnaire was then administered to a group of selected respondents. This exploratory pilot study helped enhance the credibility of the questionnaire. After changes, the entire sampled population completed the final questionnaire.

The design of the questionnaire was such that it was easy to understand, definitely relevant to the study and did not take too long to complete. This contributed to the accuracy and precision of information given by respondents, which, in turn, enhanced the reliability of the data collected.

For triangulation purposes, an observation checklist was used to ascertain the availability of convenience foods at the supermarkets and other food outlets where respondents generally purchased their food products.

To further enhance reliability, a cover page was attached to the distributed questionnaires to emphasise confidentiality and anonymity of respondents. The purpose of the research study was also unequivocally stated on the cover page of the questionnaire.

The questionnaire was designed by the researcher herself based on a thoroughly researched literature study and was tested. This enhanced reliability as well.

5.3.3 Validity

Validity may be defined as the degree to which a test measures what it is supposed to measure, a measure that accurately reflects the concept it is intended to measure (Babbie & Mouton, 2001; Neuman, 2000; Key, 1997).

To ensure validity of this study, an in-depth literature study was done. Through the literature study it was possible to conceptualise the acceptability and use of convenience foods by working women to provide theoretical support for the research study. Factors identified as important in the choice and use of convenience foods were categorised into various groupings.

To enhance validity, in this study the questionnaire was pre-tested and debugged before widespread distribution, a procedure recommended by Schiffman & Kanuk (1997). The number of answers and responses of the individuals given on the questionnaires was analysed and then interpreted according to the questions asked and in the context of the constructs incorporated in the conceptual framework in terms of the use and acceptability of convenience foods by respondents and their preferences.

The Consumer Science experts and University statistical advisors evaluated the questionnaire in terms of content as well as measurement validity. Moreover, to further enhance validity, reference was made to other research findings relating to the acceptability and use of convenience foods.

5.3.4 Ethics

The research ethics guidelines as espoused by Babbie and Mouton (2001) were followed for this study. The proposal of the study was submitted to the Consumer Science research committee who are experts in Consumer Science and to the Ethics Committee of the Faculty of Natural and Agricultural Sciences at the University of Pretoria for approval. The proposal was orally presented to the research committee as well. The research was then conducted in accordance with the approved research proposal.

Only respondents who expressed their willingness to participate were included in the study. Respondents were guaranteed confidentiality and anonymity and

assured that the information gathered would be dealt with impersonally and would not harm them in any way.

5.3.5 Data collection method and its usefulness to other researchers

The questionnaire developed provided information sought to meet the objectives of the study. In the final analysis and interpretation processes, this was seen to be the case, hence it can be concluded that this questionnaire was the correct method of data collection for this type of study and one that could be used for further research endeavours in the same field of study.

The self-administered questionnaire proved to be an excellent instrument for data collection. Respondents filled it in easily and relevantly. Of the 200 distributed questionnaires, a total of 178 questionnaires, properly completed, were returned which was 89% of the distributed questionnaires. The returned questionnaires provided a sizeable and representative sample of the target population which is a prerequisite for generalisation of the findings.

The data was collected under similar circumstances for all the respondents and was easy to process, thus reducing the risk of error.

5.3.6 Achievement of the objectives of the study

From the discussion and interpretation of the results and the conclusions reached about the study, it is clear that the objectives set for the study were successfully met. All the objectives stated in chapter 3 for this research were achieved.

5.3.7 Contribution of the study to the theory in Consumer Science

The study will contribute significantly to the limited information available on the acceptability and use of convenience foods especially amongst black working

women. The choice, acceptability and use of convenience food patterns emerging from the findings of this study concerning the frequency of consumption of certain convenience food items from the four convenience food categories, could be of great help to convenience food product developers, marketers and retailers.

5.4 FURTHER RESEARCH POSSIBILITIES

Arising from the results of this empirical research the following issues related to the field of Consumer Science, could be pursued and even developed further:

- A comparative study on convenience food consumption patterns of black households with working women and those with full-time house wives.
- The relationship between the lack of time and the consumption of convenience foods and the ownership of time saving durables by black working women in different working environments.
- Factors relating to consumers' likes and dislikes of convenience foods.
- The home life of working families including their dinner routines, observing them when preparing meals and noting how many dishes are convenience foods and how many are made from raw ingredients as well as observing the time saved on hand-on activities during meal preparation.
- A comparative study on convenience food consumption patterns of blacks and other racial groups' households with working women in South Africa.
- A comparative study on convenience food consumption patterns of Metro and Non-Metro groups.
- Food preparation by working women and the involvement of other persons in the household (household help/other family members/persons living in the home) with food preparation.

5.5 RECOMMENDATION FOR CONVENIENCE FOOD DEVELOPERS AND RETAILERS

A situation-oriented approach is suggested for further convenience food product development, as different products are more or less appropriate for different situations. With a situation-oriented approach, choices are situation dependent, but with a consumer-oriented approach the consumer could choose the similar types of food for the different situations.

When developing convenience food products for the consumer market, little is known about the context in which they could be consumed. Context, namely the occasion or situation, has a bearing on the choice of convenience food products and how they are experienced. Therefore, there is a need to investigate the various contexts in which convenience food products will be accepted and eaten in order to improve market predictions. To this effect, food developers and retailers need to study the most frequent contexts in which convenience foods are consumed. Convenience food products can then be developed to better suit a given context.

5.6 SUMMARY

To summarise, the aim of this study was to identify and determine the frequency with which a representative group of black women employed by government in Mpumalanga take advantage of convenience foods. It was also important in this study to determine the influence of sensory attributes, resources, the socio-cultural environment and the occasion or situation during which convenience foods were used by these black working women.

The main conclusions from this study are that certain convenience food products, from the four suggested convenience food categories, have a considerably low frequency of consumption and use (0 to 2 times a week). A few convenience food

items from the four convenience food categories presented a medium (3 to 4 times a week) and high frequency of consumption and use (5 to 6 days and every day of the week), according to more than 20% of the respondents. It was also strikingly clear that the five sensory attributes, namely, taste, appearance, smell, texture and flavour were found to be very important in the acceptability and use of convenience food products.

Finally, results of this study also showed that resources, the socio-cultural context and the meal experience occasion or situation had a positive influence on the acceptability and use of convenience foods by the black women employed by government in Mpumalanga participating in this investigation.

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APPENDIX A

COVER LETTER & SURVEY QUESTIONNAIRE

The acceptability and use of convenience foods

PLEASE NOTE

- You are not required to identify yourself and your response can not lead to your identification.
- Apart from taking up some of your time, answering this questionnaire presents no risk whatsoever.
- Feel free to seek any clarification and ask any question regarding this project from the researcher. (Cell: 082-683-1211).
- All responses will be treated in strict confidentiality and will be used for academic research purposes only.
- Your individual opinion is highly valued; therefore, do not confer with others during the completion of the questionnaire.

Thank you very much for your participation and assistance.

The questionnaire should take you not more than about 15 minutes to complete.

Please note that there are no right or wrong answers; a quick response is generally the most useful.

Please respond to the questions by drawing a circle around an appropriate number in a shaded box or by writing your answer in the shaded space provided.

PLEASE ANSWER ALL THE QUESTIONS

Researcher: BD Simelane

Department of Consumer Science – University of Pretoria

QUESTIONNAIRE: THE ACCEPTABILITY AND USE OF CONVENIENCE FOODS

Respondent

V1 1

Please answer each question by drawing a circle around an appropriate number in a shaded box or by writing your answer in the shaded space provided

SECTION A: DEMOGRAPHIC INFORMATION

1. Which **region** in Mpumalanga do you come from?

Nkangala	1
Gert Sibande	2
Ehlanzeni	3
Other (specify):	

V2 5

2. What **Department** are you **employed** in?
(Mark **one** option only)

Education	1
Health & Social Services	2
Culture, Sports & Recreation	3
Finance	4
Safety & Security	5
Agriculture & Land Administration	6
Public Works	7
Roads & Transport	8
Local Government & Housing	9
Economic Development & Planning	10
Office of the Premier	11

V3 6

3. What is your **highest** educational qualification?
(Mark **one** option only)

Certificate	1
Diploma	2
Degree	3
Honours degree	4
Master's degree and above	5

V4 8

4. What is your **age**?

--

V5 9

5. What is your **present** position?

Deputy Director	1
Assistant Director	2
Chief Education Specialist	3
Deputy Chief Educational Specialist	4

V6 11

6. What is your income salary level?

Level 9 (+/- R162 765 p.a.)	1
Level 10 (+/- R174 981 p.a.)	2
Level 11 (+/- R204 135 p.a.)	3
Level 12 (+/- R245 700 p.a.)	4

V7 12

7. How much **money** do you have **available** for **purchasing food** per month?

R0 to R500	1
R501 to R1000	2
R1001 to R1500	3
R1501 to R2000	4
More than R2000	5

V8 13

8. What is your **marital status**?
(Mark **one** option only)

Married and living with children in the household	1
Single and living with children in he household	2
Married with no children in the household	3
Single with no children in the household (living alone)	4
Divorced / widowed living with others	5
Divorced / widowed living alone	6

V9 14

9. How **many children** do you have in **your household**?

--

V10 15

10. What is the **age** in years of the **oldest child** staying with you in your household?

--

V11 17

11. What is the **age** in years of the **youngest child** staying with you in your household?

--

V12 20

12. How **many** people, on average, do you **usually cook for** in your household?

V13 23

13. How much **time**, on average, do you spend on **food preparation per main meal** from **Monday to Friday**?

0 to 30 minutes	1
31 to 60 minutes	2
61 to 90 minutes	3
91 to 120 minutes	4
More than 120 minutes	5

V14 25

14. How much **time**, on average, do you spend on **food preparation per main meal** during the **weekend**?

0 to 30 minutes	1
31 to 60 minutes	2
61 to 90 minutes	3
91 to 120 minutes	4
More than 120 minutes	5

V15 26

15. How much **time**, on average, do you spend on **food preparation** when preparing meals for **guests**?

0 to 30 minutes	1
31 to 60 minutes	2
61 to 90 minutes	3
91 to 120 minutes	4
More than 120 minutes	5

V16 27

16. Which equipment/appliances do you use **most** when preparing meals? (You **may indicate more than one** answer)

Microwave oven	1
Electrical stove	2
Coal stove	3
Gas stove	4
Pressure cooker	5
Slow-cooker	6
Primus-stove	7
An open fire	8

V17 28

V18 29

V19 30

V20 31

V21 32

V22 33

V23 34

V24 35

SECTION B:

continues on the next page

SECTION B: FREQUENCY OF USE OF CONVENIENCE FOODS

17. Please indicate your frequency of consumption/use for each of the convenience food items listed below using the scale:

- 1 = Never or less than once a week (NI)
 2 = 1 to 2 times a week (1w)
 3 = 3 to 4 times a week (3w)
 4 = 5 to 6 times a week (5w)
 5 = Every day (Ed)

Category A: Fully prepared ready to eat convenience foods, consumed as purchased requiring no prior preparation

No	Food Items	Ni	1w	3w	5w	Ed		
1	Fried / Grilled / Roasted chicken, beef, mutton, pork	1	2	3	4	5	V25	<input type="text"/> 36
2	Fried / Grilled fish	1	2	3	4	5	V26	<input type="text"/> 37
3	Fried potato chips	1	2	3	4	5	V27	<input type="text"/> 38
4	Fully prepared take away meals (e.g. curry / stew (chicken/beef) and rice / pap / samp)	1	2	3	4	5	V28	<input type="text"/> 39
5	Fully prepared hamburgers (e.g. chicken; fish; beef; vegetable; cheese hamburgers)	1	2	3	4	5	V29	<input type="text"/> 40
6	Fully prepared vegetable dishes	1	2	3	4	5	V30	<input type="text"/> 41
7	Cereal dishes (e.g. pap, rice, samp, maize rice, etcetera)	1	2	3	4	5	V31	<input type="text"/> 42
8	Fully prepared pies	1	2	3	4	5	V32	<input type="text"/> 43
9	Fully prepared refrigerated salads	1	2	3	4	5	V33	<input type="text"/> 44
10	Baked products i.e. bread, bread rolls, doughnuts, sandwiches etcetera	1	2	3	4	5	V34	<input type="text"/> 45

Category B: Fully prepared ready to eat convenience foods requiring only mild heating before consumption

No	Food Items	Ni	1w	3w	5w	Ed		
11	Smoked meat dishes (e.g. chicken, ribs, beef, etcetera.)	1	2	3	4	5	V35	<input type="text"/> 46
12	Tinned meat dishes (e.g. meat balls, spaghetti with mince, corned beef, etcetera.)	1	2	3	4	5	V36	<input type="text"/> 47
13	Tinned vegetable dishes (e.g. peas, baked beans etcetera.)	1	2	3	4	5	V37	<input type="text"/> 48
14	Fully prepared vegetable dishes	1	2	3	4	5	V38	<input type="text"/> 49
15	Tinned fish	1	2	3	4	5	V39	<input type="text"/> 50
16	Stews (meat stews)	1	2	3	4	5	V40	<input type="text"/> 51
17	Prepared green leafy vegetables	1	2	3	4	5	V41	<input type="text"/> 52
18	Refrigerated ready to eat meals	1	2	3	4	5	V42	<input type="text"/> 53
19	Refrigerated dips/dressings/sauces	1	2	3	4	5	V43	<input type="text"/> 54
20	Pizza bases	1	2	3	4	5	V44	<input type="text"/> 55

Category C: continues on the next page

Category C: Partially or fully prepared convenience foods that need additional ingredients e.g. milk or hot/boiling water or salad dressing, which after mixing or cooking are ready to eat

Please use the scale:

1 = Never or less than once a week (NI)
2 = 1 to 2 times a week (1w)
3 = 3 to 4 times a week (3w)
4 = 5 to 6 times a week (5w)
5 = Every day (Ed)

No	Food Item	Ni	1w	3w	5w	Ed		
21	Breakfast cereals (corn flakes, rice crispies etcetera)	1	2	3	4	5	V45	<input type="text"/> 56
22	Vegetable Salad ingredients	1	2	3	4	5	V46	<input type="text"/> 57
23	Instant sauces	1	2	3	4	5	V47	<input type="text"/> 58
24	Soup (Instant)	1	2	3	4	5	V48	<input type="text"/> 59
25	Two minute noodles	1	2	3	4	5	V49	<input type="text"/> 60
26	Cake mixes	1	2	3	4	5	V50	<input type="text"/> 61
27	Pasta with flavorings (to which minced meat/tuna or chicken have to be added)	1	2	3	4	5	V51	<input type="text"/> 62
28	Pre-cooked meat/poultry	1	2	3	4	5	V52	<input type="text"/> 63
29	Stir fries	1	2	3	4	5	V53	<input type="text"/> 64
30	Dessert mixes (e.g. instant puddings)	1	2	3	4	5	V54	<input type="text"/> 65

Category D: Partially prepared ready to cook, bake or fry convenience foods that have been minimally prepared for cooking but still require full cooking of some or all of their components

No	Food Items	Ni	1w	3w	5w	Ed		
31	Pre-cut frozen vegetables	1	2	3	4	5	V55	<input type="text"/> 66
32	Frozen hamburgers	1	2	3	4	5	V56	<input type="text"/> 67
33	Crumbed frozen fish/sea foods	1	2	3	4	5	V57	<input type="text"/> 68
34	Crumbed frozen or refrigerated meat portions	1	2	3	4	5	V58	<input type="text"/> 69
35	Frozen Pies	1	2	3	4	5	V59	<input type="text"/> 70
36	Frozen Pizzas	1	2	3	4	5	V60	<input type="text"/> 71
37	Frozen bakery products	1	2	3	4	5	V61	<input type="text"/> 72
38	Marinated meat dishes (Kebabs, ribs, chicken flatties etcetera)	1	2	3	4	5	V62	<input type="text"/> 73
39	Frozen potato chips	1	2	3	4	5	V63	<input type="text"/> 74
40	Cleaned/peeled ready to cook vegetable items	1	2	3	4	5	V64	<input type="text"/> 75

SECTION C: continues on the next page

SECTIONC: SENSORY ATTRIBUTES THAT CONTRIBUTE TO THE USE AND ACCEPTABILITY OF THE CONVENIENCE FOOD CATEGORIES

18. How important are the sensory attributes *APPEARANCE*, *TASTE*, *TEXTURE*, *SMELL* and *FLAVOUR* in your choice, use and acceptability of convenience foods?

Importance scale:

- 1 = *Of no importance* (*no*)
 2 = *Of little importance* (*li*)
 3 = *Important* (*lm*)
 4 = *Very important* (*vi*)

Category A: Fully prepared ready to eat convenience foods, consumed as purchased requiring no prior preparation

No	Food Items	Sensory attributes	Importance						
			no	li	lm	vi			
1	Fried / Grilled / Roasted Chicken; beef; mutton; pork	Appearance	1	2	3	4	V65		76
		Taste	1	2	3	4	V66		77
		Texture	1	2	3	4	V67		78
		Smell	1	2	3	4	V68		79
		Flavour	1	2	3	4	V69		80
2	Fried / Grilled fish	Appearance	1	2	3	4	V70		81
		Taste	1	2	3	4	V71		82
		Texture	1	2	3	4	V72		83
		Smell	1	2	3	4	V73		84
		Flavour	1	2	3	4	V74		85
3	Fried potato chips	Appearance	1	2	3	4	V75		86
		Taste	1	2	3	4	V76		87
		Texture	1	2	3	4	V77		88
		Smell	1	2	3	4	V78		89
		Flavour	1	2	3	4	V79		90
4	Fully prepared take away meals (e.g. curry / stew (chicken / beef etcetera) and rice / pap / samp	Appearance	1	2	3	4	V80		91
		Taste	1	2	3	4	V81		92
		Texture	1	2	3	4	V82		93
		Smell	1	2	3	4	V83		94
		Flavour	1	2	3	4	V84		95
5	Fully prepared hamburgers (chicken; fish; beef; vegetables; cheese)	Appearance	1	2	3	4	V85		96
		Taste	1	2	3	4	V86		97
		Texture	1	2	3	4	V87		98
		Smell	1	2	3	4	V88		99
		Flavour	1	2	3	4	V89		100

Category A: (cont.)

Fully prepared ready to eat convenience foods, consumed as purchased requiring no prior preparation

Importance scale:

- 1 = Of **no** importance (no)
2 = Of **little** importance (li)
3 = **Important** (Im)
4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance					
			no	li	Im	Vi		
6	Fully prepared vegetable dishes	Appearance	1	2	3	4	V90	101
		Taste	1	2	3	4	V91	102
		Texture	1	2	3	4	V92	103
		Smell	1	2	3	4	V93	104
		Flavour	1	2	3	4	V94	105
7	Cereal dishes (pap, rice, samp, maize rice)	Appearance	1	2	3	4	V95	106
		Taste	1	2	3	4	V96	107
		Texture	1	2	3	4	V97	108
		Smell	1	2	3	4	V98	109
		Flavour	1	2	3	4	V99	110
8	Fully prepared pies	Appearance	1	2	3	4	V100	111
		Taste	1	2	3	4	V101	112
		Texture	1	2	3	4	V102	113
		Smell	1	2	3	4	V103	114
		Flavour	1	2	3	4	V104	115
9	Fully prepared refrigerated salads	Appearance	1	2	3	4	V105	116
		Taste	1	2	3	4	V106	117
		Texture	1	2	3	4	V107	118
		Smell	1	2	3	4	V108	119
		Flavour	1	2	3	4	V109	120
10	Baked products i.e. bread, bread rolls, doughnuts, sandwiches	Appearance	1	2	3	4	V110	121
		Taste	1	2	3	4	V111	122
		Texture	1	2	3	4	V112	123
		Smell	1	2	3	4	V113	124
		Flavour	1	2	3	4	V114	125

Category B:

continues on the next page

Category B: Fully prepared ready to eat convenience foods requiring only mild heating before consumption

Importance scale:

- 1 = Of *no* importance (no)
2 = Of *little* importance (li)
3 = *Important* (Im)
4 = *Very important* (Vi)

No	Food Items	Sensory attributes	Importance						
			no	li	Im	Vi			
11	Smoked meat dishes (chicken, ribs, beef, etcetera)	Appearance	1	2	3	4	V115		126
		Taste	1	2	3	4	V116		127
		Texture	1	2	3	4	V117		128
		Smell	1	2	3	4	V118		129
		Flavour	1	2	3	4	V119		130
12	Tinned meat dishes (meat balls, spaghetti with mince, corned beef, etcetera)	Appearance	1	2	3	4	V120		131
		Taste	1	2	3	4	V121		132
		Texture	1	2	3	4	V122		133
		Smell	1	2	3	4	V123		134
		Flavour	1	2	3	4	V124		135
13	Tinned vegetable dishes (peas, baked beans, etcetera)	Appearance	1	2	3	4	V125		136
		Taste	1	2	3	4	V126		137
		Texture	1	2	3	4	V127		138
		Smell	1	2	3	4	V128		139
		Flavour	1	2	3	4	V129		140
14	Fully prepared vegetable dishes	Appearance	1	2	3	4	V130		141
		Taste	1	2	3	4	V131		142
		Texture	1	2	3	4	V132		143
		Smell	1	2	3	4	V133		144
		Flavour	1	2	3	4	V134		145
15	Tinned fish	Appearance	1	2	3	4	V135		146
		Taste	1	2	3	4	V136		147
		Texture	1	2	3	4	V137		148
		Smell	1	2	3	4	V138		149
		Flavour	1	2	3	4	V139		150
16	Stews (meat stews)	Appearance	1	2	3	4	V140		151
		Taste	1	2	3	4	V141		152
		Texture	1	2	3	4	V142		153
		Smell	1	2	3	4	V143		154
		Flavour	1	2	3	4	V144		155
17	Prepared green leafy vegetables	Appearance	1	2	3	4	V145		156
		Taste	1	2	3	4	V146		157
		Texture	1	2	3	4	V147		158
		Smell	1	2	3	4	V148		159
		Flavour	1	2	3	4	V149		160

Category B (cont.): Fully prepared ready to eat convenience foods requiring only mild heating before consumption

Importance scale:

- 1 = Of **no** importance (no)
 2 = Of **little** importance (li)
 3 = **Important** (Im)
 4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance						
			no	li	Im	Vi			
18	Refrigerated ready to eat meals	Appearance	1	2	3	4	V150	<input type="checkbox"/>	161
		Taste	1	2	3	4	V151	<input type="checkbox"/>	162
		Texture	1	2	3	4	V152	<input type="checkbox"/>	163
		Smell	1	2	3	4	V153	<input type="checkbox"/>	164
		Flavour	1	2	3	4	V154	<input type="checkbox"/>	165
19	Refrigerated dips/dressings/sauces	Appearance	1	2	3	4	V155	<input type="checkbox"/>	166
		Taste	1	2	3	4	V156	<input type="checkbox"/>	167
		Texture	1	2	3	4	V157	<input type="checkbox"/>	168
		Smell	1	2	3	4	V158	<input type="checkbox"/>	169
		Flavour	1	2	3	4	V159	<input type="checkbox"/>	170
20	Pizza bases	Appearance	1	2	3	4	V160	<input type="checkbox"/>	171
		Taste	1	2	3	4	V161	<input type="checkbox"/>	172
		Texture	1	2	3	4	V162	<input type="checkbox"/>	173
		Smell	1	2	3	4	V163	<input type="checkbox"/>	174
		Flavour	1	2	3	4	V164	<input type="checkbox"/>	175

Category C: *continues on the next page*

Category C: Partially or fully prepared convenience foods that need additional ingredients e.g. milk or hot/boiling water or salad dressing, which after mixing or cooking are ready to eat

Importance scale:

- 1 = Of **no** importance (no)
 2 = Of **little** importance (li)
 3 = **Important** (Im)
 4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance						
			no	li	Im	Vi			
21	Breakfast cereals (corn flakes, rice crispies, etcetera)	Appearance	1	2	3	4	V165		176
		Taste	1	2	3	4	V166		177
		Texture	1	2	3	4	V167		178
		Smell	1	2	3	4	V168		179
		Flavour	1	2	3	4	V169		180
22	Vegetable salad ingredients	Appearance	1	2	3	4	V170		181
		Taste	1	2	3	4	V171		182
		Texture	1	2	3	4	V172		183
		Smell	1	2	3	4	V173		184
		Flavour	1	2	3	4	V174		185
23	Instant sauces	Appearance	1	2	3	4	V175		186
		Taste	1	2	3	4	V176		187
		Texture	1	2	3	4	V177		188
		Smell	1	2	3	4	V178		189
		Flavour	1	2	3	4	V179		190
24	Soup (instant)	Appearance	1	2	3	4	V180		191
		Taste	1	2	3	4	V181		192
		Texture	1	2	3	4	V182		193
		Smell	1	2	3	4	V183		194
		Flavour	1	2	3	4	V184		195
25	Two minute noodles	Appearance	1	2	3	4	V185		196
		Taste	1	2	3	4	V186		197
		Texture	1	2	3	4	V187		198
		Smell	1	2	3	4	V188		199
		Flavour	1	2	3	4	V189		200
26	Cake mixes	Appearance	1	2	3	4	V190		201
		Taste	1	2	3	4	V191		202
		Texture	1	2	3	4	V192		203
		Smell	1	2	3	4	V193		204
		Flavour	1	2	3	4	V194		205
27	Pasta with flavourings (to which minced meat/tuna or chicken have to be added)	Appearance	1	2	3	4	V195		206
		Taste	1	2	3	4	V196		207
		Texture	1	2	3	4	V197		208
		Smell	1	2	3	4	V198		209
		Flavour	1	2	3	4	V199		210

Category C (cont.): Partially or fully prepared convenience foods that need additional ingredients e.g. milk or hot/boiling water or salad dressing, which after mixing or cooking are ready to eat

Importance scale:

- 1 = Of *no* importance (no)
2 = Of *little* importance (li)
3 = **Important** (Im)
4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance					
			no	li	Im	Vi		
28	Pre-cooked meat/poultry	Appearance	1	2	3	4	V200	211
		Taste	1	2	3	4	V201	212
		Texture	1	2	3	4	V202	213
		Smell	1	2	3	4	V203	214
		Flavour	1	2	3	4	V204	215
29	Stir fries	Appearance	1	2	3	4	V205	216
		Taste	1	2	3	4	V206	217
		Texture	1	2	3	4	V207	218
		Smell	1	2	3	4	V208	219
		Flavour	1	2	3	4	V209	220
30	Dessert mixes (e.g. instant puddings)	Appearance	1	2	3	4	V210	221
		Taste	1	2	3	4	V211	222
		Texture	1	2	3	4	V212	223
		Smell	1	2	3	4	V213	224
		Flavour	1	2	3	4	V214	225

Category D: *continues on the next page*

Category D: Partially prepared ready to cook, bake or fry convenience foods that have been minimally prepared for cooking but still require full cooking of some or all of their components

Importance scale:

- 1 = Of **no** importance (no)
2 = Of **little** importance (li)
3 = **Important** (Im)
4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance						
			no	li	Im	Vi			
31	Pre-cut frozen vegetables	Appearance	1	2	3	4	V215		226
		Taste	1	2	3	4	V216		227
		Texture	1	2	3	4	V217		228
		Smell	1	2	3	4	V218		229
		Flavour	1	2	3	4	V219		230
32	Frozen hamburgers	Appearance	1	2	3	4	V220		231
		Taste	1	2	3	4	V221		232
		Texture	1	2	3	4	V222		233
		Smell	1	2	3	4	V223		234
		Flavour	1	2	3	4	V224		235
33	Crumbed frozen fish/sea foods	Appearance	1	2	3	4	V225		236
		Taste	1	2	3	4	V226		237
		Texture	1	2	3	4	V227		238
		Smell	1	2	3	4	V228		239
		Flavour	1	2	3	4	V229		240
34	Crumbed frozen or refrigerated meat portions	Appearance	1	2	3	4	V230		241
		Taste	1	2	3	4	V231		242
		Texture	1	2	3	4	V232		243
		Smell	1	2	3	4	V233		244
		Flavour	1	2	3	4	V234		245
35	Frozen pies	Appearance	1	2	3	4	V235		246
		Taste	1	2	3	4	V236		247
		Texture	1	2	3	4	V237		248
		Smell	1	2	3	4	V238		249
		Flavour	1	2	3	4	V239		250
36	Frozen Pizzas	Appearance	1	2	3	4	V240		251
		Taste	1	2	3	4	V241		252
		Texture	1	2	3	4	V242		253
		Smell	1	2	3	4	V243		254
		Flavour	1	2	3	4	V244		255
37	Frozen bakery products	Appearance	1	2	3	4	V245		256
		Taste	1	2	3	4	V246		257
		Texture	1	2	3	4	V247		258
		Smell	1	2	3	4	V248		259
		Flavour	1	2	3	4	V249		260

Category D (cont.): Partially prepared ready to cook, bake or fry convenience foods that have been minimally prepared for cooking but still require full cooking of some or all of their components

Importance scale:

- 1 = Of *no* importance (no)
 2 = Of *little* importance (li)
 3 = **Important** (Im)
 4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance					
			no	li	Im	Vi		
38	Marinated meat dishes (Kebabs, ribs, chicken flatties etcetera)	Appearance	1	2	3	4	V250	261
		Taste	1	2	3	4	V251	262
		Texture	1	2	3	4	V252	263
		Smell	1	2	3	4	V253	264
		Flavour	1	2	3	4	V254	265
39	Frozen potato chips	Appearance	1	2	3	4	V255	266
		Taste	1	2	3	4	V256	267
		Texture	1	2	3	4	V257	268
		Smell	1	2	3	4	V258	269
		Flavour	1	2	3	4	V259	270
40	Clean/peeled ready to cook vegetable items	Appearance	1	2	3	4	V260	
		Taste	1	2	3	4	V261	
		Texture	1	2	3	4	V262	
		Smell	1	2	3	4	V263	
		Flavour	1	2	3	4	V264	

SECTION D:

continues on the next page

SECTION D: **THE INFLUENCE OF RESOURCES IN THE USE OF CONVENIENCE FOODS**

19. Which of the following is a **reason** for your use of convenience foods? (You **may indicate more than one** answer)

No	Reason	Yes	No		
1	Convenience foods are readily available in your area	1	2	V265	<input type="checkbox"/> 276
2	The price of convenience foods is affordable to you	1	2	V266	<input type="checkbox"/> 277
3	You have enough storage space for convenience foods	1	2	V267	<input type="checkbox"/> 278
4	You have equipment and appliances which enable you to prepare convenience foods	1	2	V268	<input type="checkbox"/> 279
5	You consider yourself knowledgeable and skilled in convenience food preparation	1	2	V269	<input type="checkbox"/> 280
6	You lack knowledge and skills in preparing food from scratch using raw ingredients	1	2	V270	<input type="checkbox"/> 281
7	Other (specify):			V271	<input type="checkbox"/> <input type="checkbox"/> 282

SECTION E: **SOCIAL ENVIRONMENT AND THE USE OF CONVENIENCE FOODS**

20. Which of the following have an influence on your acceptance and use of convenience foods? (You **may indicate more than one** answer)

No	Social environment	Yes	No		
1	Your busy/hurried lifestyle	1	2	V272	<input type="checkbox"/> 284
2	The convenience of convenience foods	1	2	V273	<input type="checkbox"/> 285
3	You believe, you get value for your money in your purchase and use of convenience foods	1	2	V274	<input type="checkbox"/> 286
4	You believe, you save time through the use of convenience foods in your meal preparation	1	2	V275	<input type="checkbox"/> 287
5	You lack time to prepare food from scratch, using raw ingredients	1	2	V276	<input type="checkbox"/> 288
6	It is easy to access, prepare and serve convenience foods	1	2	V277	<input type="checkbox"/> 289
7	Other (specify):			V278	<input type="checkbox"/> <input type="checkbox"/> 290

SECTION F: *continues on the next page*

SECTION F: OCCASION / SITUATION FOR ACCEPTANCE AND USE OF CONVENIENCE FOODS

21. On which of the following occasions/situations do you accept and use convenience foods? (You may indicate more than one answer)

No	Occasion/Situation	Yes	No
1	During week days	1	2
2	During weekends	1	2
3	When entertaining guests	1	2
4	During breakfast	1	2
5	During lunch	1	2
6	During supper	1	2
7	Other (specify):		

V279	<input type="checkbox"/>	292
V280	<input type="checkbox"/>	293
V281	<input type="checkbox"/>	294
V282	<input type="checkbox"/>	295
V283	<input type="checkbox"/>	296
V284	<input type="checkbox"/>	297
V285	<input type="checkbox"/>	<input type="checkbox"/> 298

SECTION G: PLACES WHERE CONVENIENCE FOODS ARE BOUGHT

22. Where do you buy convenience foods? (You may indicate more than one answer)

No	Purchase convenience foods from	Yes	No
1	Pick 'n Pay	1	2
2	Shoprite Checkers	1	2
3	Spar	1	2
4	Kwik Spaar	1	2
5	Woolworths	1	2
6	OK	1	2
7	Street vendors	1	2
8	Spaza shops	1	2
9	Other (specify):		

V286	<input type="checkbox"/>	300
V287	<input type="checkbox"/>	301
V288	<input type="checkbox"/>	302
V289	<input type="checkbox"/>	303
V290	<input type="checkbox"/>	304
V291	<input type="checkbox"/>	305
V292	<input type="checkbox"/>	306
V293	<input type="checkbox"/>	307
V294	<input type="checkbox"/>	<input type="checkbox"/> 308

Thank you for your time and your co-operation in filling out this Questionnaire

APPENDIX B

OBSERVATION CHECKLIST

Item	Observation	Attributes observed	Comment
1	Are convenience foods available on the shop?	Convenience foods availability	
2	What is the variety of convenience foods?	Convenience food categories	
3	What is the shop lay-out?	Convenience foods display	
4	How are the convenience foods packaged?	Sensory attributes	
5	Are sensory attributes well presented in the convenience foods sold at the Deli?	Sensory attributes	
6	How are convenience foods displayed?	Sensory attributes	
7	What are the prices of the convenience foods?	Social/socio-cultural environment: food prices	
8	What are the methods of payment used by food purchasers?	Forms of payment e.g. cash, debit card etc.	
9	Do working women buy the convenience foods displayed in the shop?	Buying behaviour of women	
10	Do working women spend some time when purchasing food in the shop?	Social/socio-cultural environment	

RANDOM NUMBER SELECTION PER DEPARTMENT AND PER STRATUM

Dept	Stratum	Person
01	1	02
01	1	03
01	1	01
01	2	05
01	2	09
01	2	06
01	2	04
01	2	08
01	2	07
01	3	11
01	3	39
01	3	13
01	3	17
01	3	36
01	3	10
01	3	25
01	3	21
01	3	20
01	3	23
01	3	33
01	3	37
01	3	40
01	3	34
01	3	27
01	3	15
01	3	42
01	3	24
01	3	28
01	3	29
01	3	14
01	3	18
01	3	22
01	3	26
01	3	16
01	3	41
01	3	44
01	3	30
01	3	35
01	3	12
01	3	38
01	3	32
01	3	31
01	3	43
01	3	19
01	4	52
01	4	50
01	4	53
01	4	56

RANDOM NUMBER SELECTION PER DEPARTMENT AND PER STRATUM

Dept	Stratum	Person
01	4	51
01	4	55
01	4	49
01	4	45
01	4	54
01	4	48
01	4	46
01	4	47
02	1	01
02	1	03
02	1	02
02	2	11
02	2	09
02	2	04
02	2	07
02	2	10
02	2	05
02	2	08
02	2	06
02	3	13
02	3	16
02	3	15
02	3	14
02	3	12
02	4	36
02	4	52
02	4	26
02	4	25
02	4	48
02	4	55
02	4	42
02	4	31
02	4	49
02	4	17
02	4	35
02	4	33
02	4	58
02	4	50
02	4	59
02	4	34
02	4	24
02	4	37
02	4	53
02	4	32
02	4	23
02	4	60
02	4	47

RANDOM NUMBER SELECTION PER DEPARTMENT AND PER STRATUM

Dept	Stratum	Person
02	4	29
02	4	19
02	4	46
02	4	28
02	4	38
02	4	54
02	4	51
02	4	22
02	4	39
02	4	40
02	4	21
02	4	57
02	4	56
02	4	27
02	4	20
02	4	30
02	4	44
02	4	18
02	4	41
02	4	43
02	4	45
03	1	08
03	1	09
03	1	03
03	1	04
03	1	05
03	1	02
03	1	07
03	1	01
03	1	06
03	2	11
03	2	12
03	2	10
03	3	14
03	3	22
03	3	16
03	3	15
03	3	19
03	3	18
03	3	13
03	3	21
03	3	17
03	3	20
04	1	01
04	2	03
04	2	06

RANDOM NUMBER SELECTION PER DEPARTMENT AND PER STRATUM

Dept	Stratum	Person
04	2	05
04	2	04
04	2	02
04	3	08
04	3	07
04	4	18
04	4	27
04	4	10
04	4	25
04	4	24
04	4	26
04	4	11
04	4	20
04	4	17
04	4	22
04	4	15
04	4	23
04	4	09
04	4	13
04	4	12
04	4	14
04	4	19
04	4	16
04	4	21
05	1	02
05	1	01
05	2	06
05	2	04
05	2	03
05	2	05
05	3	08
05	3	09
05	3	07
05	4	11
05	4	14
05	4	18
05	4	12
05	4	16
05	4	15
05	4	20
05	4	21
05	4	10
05	4	13
05	4	22
05	4	24
05	4	17

RANDOM NUMBER SELECTION PER DEPARTMENT AND PER STRATUM

Dept	Stratum	Person
05	4	19
05	4	23
06	1	01
06	2	09
06	2	10
06	2	04
06	2	05
06	2	06
06	2	03
06	2	08
06	2	02
06	2	07
06	3	22
06	3	30
06	3	24
06	3	23
06	3	14
06	3	17
06	3	16
06	3	21
06	3	11
06	3	19
06	3	13
06	3	15
06	3	12
06	3	25
06	3	20
06	3	18
06	3	27
06	3	29
06	3	28
06	3	26
07	1	01
07	2	03
07	2	05
07	2	02
07	2	14
07	2	09
07	2	10
07	2	13
07	2	12
07	2	08
07	2	11
07	2	04
07	2	15
07	2	07
07	2	06

RANDOM NUMBER SELECTION PER DEPARTMENT AND PER STRATUM

Dept	Stratum	Person
07	3	16
07	4	18
07	4	34
07	4	31
07	4	29
07	4	28
07	4	27
07	4	32
07	4	23
07	4	19
07	4	33
07	4	24
07	4	22
07	4	36
07	4	20
07	4	35
07	4	17
07	4	26
07	4	30
07	4	37
07	4	25
07	4	21
08	1	02
08	1	01
08	2	18
08	2	16
08	2	03
08	2	06
08	2	17
08	2	12
08	2	09
08	2	14
08	2	11
08	2	07
08	2	10
08	2	15
08	2	08
08	2	13
08	2	04
08	2	05
09	1	02
09	1	01
09	2	11
09	2	05
09	2	12
09	2	08
09	2	06

RANDOM NUMBER SELECTION PER DEPARTMENT AND PER STRATUM

Dept	Stratum	Person
09	2	13
09	2	03
09	2	10
09	2	09
09	2	07
09	2	04
10	1	01
10	1	02
10	2	03
10	3	05
10	3	07
10	3	04
10	3	09
10	3	08
10	3	10
10	3	06
11	1	11
11	1	07
11	1	15
11	1	16
11	1	02
11	1	08
11	1	04
11	1	05
11	1	10
11	1	12
11	1	14
11	1	17
11	1	01
11	1	13
11	1	09
11	1	06
11	1	03
11	2	22
11	2	20
11	2	19
11	2	21
11	3	38
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11	3	37
11	3	32
11	3	29
11	3	34
11	3	31
11	3	27

RANDOM NUMBER SELECTION PER DEPARTMENT AND PER STRATUM

Dept	Stratum	Person
11	3	30
11	3	35
11	3	28
11	3	33
11	3	24
11	3	25

Select the persons per Department and per Stratum as indicated in **RED (201 persons)**

If the person to be selected is not available replace him/her with the first person per Department per Stratum in the non-coloured list.

Building 5
Government Boulevard
Riverside Park
NELSPRUIT
1200
Republic of South Africa



Private Bag X11341
NELSPRUIT
1200
South Africa

Tel. No.: (013) 766 5316
Fax No.: (013) 766 5580

DEPARTMENT OF EDUCATION

Litiko leTemfundvo Umyango weFundo Departement van Onderwys Umyango wezeMfundo

Enquiries: Ms. BD Simelane
Tel: (013) 766-5400
Fax: (013) 766-5589
Cell: 082 683 1211
bdsimelane@nel.mpu.gov.za

09 October 2006

**TO: THE DIRECTOR GENERAL: KW NGEMA
MPUMALANGA PROVINCIAL GOVERNMENT
BUILDING 2
GOVERNMENT BOULEVARD
RIVERSIDE PARK
PRIVATE BAG X11291
NELSPRUIT
1200**

Dear Sir

REQUEST TO ADMINISTER QUESTIONNAIRES TO MIDDLE MANAGEMENT BLACK FEMALE GOVERNMENT EMPLOYEES WORKING IN THE DIFFERENT GOVERNMENT DEPARTMENTS AT THE GOVERNMENT BOULEVARD COMPLEX.

I hereby wish to apply for permission to administer questionnaires to 300 female government employees who occupy middle management positions (Deputy Directors, Chief Education Specialists, Deputy Chief Education Specialists and Assistant Directors) at the Government Boulevard Complex.

I am presently studying part time (Skills Development Government Initiative) towards completion of the Masters in Consumer Science Degree with the University of Pretoria. The title of my dissertation is: The acceptability and use of convenience foods by black working women employed by government in Mpumalanga.

The purpose of the research study is to determine the acceptability and use of convenience food categories by black working women employed by government in Mpumalanga.

This research study will benefit the food industry and retail in terms of providing relevant convenience foods for the "time poor" consumers. The academic contribution of this study will be of value to the limited available information about the South African working women's use of convenience food products.

Enclosed please find a copy on the brief of the research study and a questionnaire to this effect.

I hope you will find the content of this letter in order.

Thanking you in anticipation.

Sincerely

Ms BD Simelane
DCES: Consumer studies; Hospitality studies & Tourism
FET Curriculum

174

Building 5
Government Boulevard
Riverside Park
NELSPRUIT
1200
Republic of South Africa



Private Bag X11341
NELSPRUIT
1200
South Africa

Tel. No.: (013) 766 5316
Fax No.: (013) 766 5580

DEPARTMENT OF EDUCATION

Litiko leTemfundvo Umnyango weFundo Departement van Onderwys Umnyango wezeMfundo

Enquiries: BD Simelane
Tel : 013-7665400
Fax : 013-766 5593
Cell : 082 683 1211
Email : bdsimelane@nel.mpu.gov.za

MEMO

TO: MR. K MOHAN : FET ACTING CES
MR. SJ MKHWANAZI : FET ACTING DIRECTOR
DR. H VAN ZYL : FET AND GET ACTING CHIEF DIRECTOR
MR. MR TYWAKADI : SUPERINTENDENT GENERAL

FROM: MRS BD SIMELANE : DCES: CONSUMER STUDIES, HOSPITALITY STUDIES & TOURISM

DATE: 12 OCTOBER 2006

SUBJECT: REQUEST TO ADMINISTER QUESTIONNAIRES TO MIDDLE MANAGEMENT BLACK FEMALE EMPLOYEES WORKING IN THE DIFFERENT GOVERNMENT DEPARTMENTS AT THE GOVERNMENT BOULEVARD COMPLEX

I am presently studying part time (Skills Development Government Initiative) towards completion of the Masters in Consumer Science Degree with the University of Pretoria. The title of my dissertation is: The acceptability and use of convenience foods by black working women employed by government in Mpumalanga.

The purpose of the research study is to determine the acceptability and use of convenience food categories by black working women employed by government in Mpumalanga.

This research study will benefit the food industry and retail in terms of providing relevant convenience foods for the “time poor” consumers. The academic contribution of this study will be of adding value to the

limited available information in Consumer Science about the South African working women's use of convenience food products.

I hereby wish to request for permission to administer questionnaires to 300 female government employees who occupy middle management positions (Deputy Directors, Chief Education Specialists, Deputy Chief Education Specialists and Assistant Directors) at the Government Boulevard Complex.

Enclosed please find a copy on the brief of the research study and a questionnaire to this effect. I also enclosed a possible response letter for my Superintendent General which I can present to the different departments when accessing information for my stratified systematic sampling of my research participants.

I hope you will find the above in order.

Your positive response is thanked in advance.

**DCES: Consumer studies,
Hospitality studies & Tourism
FET CURRICULUM
MRS B.D SIMELANE
DATE: _____**

Supported / not supported

Remarks:-----

**ACTING FET CURRICULUM
CES: MR. K MOHAN
DATE: _____**

Supported / not supported

Remarks:-----

**ACTING FET CURRICULUM
DIRECTOR
MR S.J MKHWANAZI
DATE: _____**



Supported / not supported

Remarks:-----

**ACTING CHIEF DIRECTOR
FET & GET CURRICULUM
DR. H VAN ZYL
DATE: _____**

Approved / not approved

Remarks:-----

**SUPERINTENDEDNT GENERAL
MR. MR TYWAKADI
DATE: _____**

APPENDIX F: LETTER FROM THE DEPARTMENT OF EDUCATION
MPUMALANGA PROVINCIAL GOVERNMENT

Building 5
Government Boulevard
Riverside Park
NELSPRUIT
1200
Republic of South Africa



Private Bag X11341
NELSPRUIT
1200
South Africa

Tel. No.: (013) 766 5316
Fax No.: (013) 766 5580

DEPARTMENT OF EDUCATION

Litiko leTemfundvo Umnyango weFundo Departement van Onderwys Umnyango wezeMfundo

Enquiries: Ms. BD Simelane
Tel: (013) 766-5400
Fax: (013) 766-5589
Cell: 082 683 1211
bdsimelane@nel.mpu.gov.za

12 October 2006

**TO: ALL GOVERNMENT DEPARTMENTS: HR UNIT
MPUMALANGA PROVINCIAL GOVERNMENT
BUILDING 1 - 9
GOVERNMENT BOULEVARD
RIVERSIDE PARK
NELSPRUIT
1200**

Dear Sir/Madam

ADMINISTERING OF QUESTIONNAIRES TO MIDDLE MANAGEMENT BLACK FEMALE EMPLOYEES IN THE DIFFERENT GOVERNMENT DEPARTMENTS AT THE GOVERNMENT BOULEVARD COMPLEX.

This is to notify all relevant stakeholders that Ms Bhaba Dorothy Simelane a Deputy Chief Education Specialist in the FET Curriculum has been permitted to administer questionnaires to 300 female government employees who occupy middle management positions (Deputy Directors, Chief Education Specialists, Deputy Chief Education Specialists and Assistant Directors) at the Government Boulevard Complex.

The research study she is conducting is part of her skills development requirements towards completion of her Masters in Consumer Science Degree with the University of Pretoria. The title of her dissertation is: The acceptability and use of convenience foods by black working women employed by government in Mpumalanga.

The purpose of the research study is to determine the acceptability and use of convenience food categories by black working women employed by government in Mpumalanga.

This research study will benefit the food industry and retail in terms of providing relevant convenience foods for the "time poor" consumers. The academic contribution of this study will be of value to the limited available information about the South African working women's use of convenience food products.

Please give her your unreserved assistance to acquire the information she needs towards completion of the survey.

Thanking you in advance.

Sincerely

**SUPERINTENDENT GENERAL
MR M.R TYWAKADI**

APPENDIX G: NOTIFICATION TOWARDS SUBMISSION OF THE RESEARCH REPORT

PO Box 1320
Kanyamazane
1214
31 July 2007

The Head of Department: Prof H M De Klerk
Department of Consumer Science
University of Pretoria
Pretoria
0002

Madam

Subject: Notification towards script submission in partial fulfillment of the requirements for the degree Master in Consumer Science: Food Management

I herewith wish to submit my script in partial fulfillment of the requirements for the degree Master in Consumer Science: Food Management for recommendations and approval.

I have already made a declaration for the script to the commissioner of oaths (see attached copy of declaration).

I hope you will find the above in order.

Thank you

BD Simelane (2235052-8)

APPENDIX H: DECLARATION - COMMISSIONER OF OATH

Declaration

I Simelane BD, ID No: 600828 0773 083, Student No: 2235052-8 hereby declare that the script titled: *The acceptability and use of convenience foods by black working women employed by government in Mpumalanga*, submitted for the fulfillment of the requirements for the degree Master in Consumer Science: Food management at the University of Pretoria is my own original work.

I further declare that all sources cited or quoted are acknowledged by means of a comprehensive list of references.

Signature: _____

BD Simelane (2235052-8)

Commissioner of Oath

(Surname and Initials)

Commissioner of Oath's signature

Date _____

Office Stamp:

APPENDIX I: UNIVERSITY OF PRETORIA CLEARANCE LETTER



University of Pretoria

Roper Street1, Hillcrest, Pretoria, South Africa

**TO: ALL THE HEADS OF GOVERNMENT DEPARTMENTS
MPUMALANGA PROVINCIAL GOVERNMENT
GOVERNMENT BOULEVARD
RIVERSIDE PARK
NELSPRUIT
1200**

Dear Sir/Madam

**CLEARANCE FOR BHABA DOROTHY SIMELANE ID: 600828 0773 083,
STUDENT NUMBER: 2235052-8 TO ADMINISTER QUESTIONNAIRES
TOWARDS HER MASTERS DEGREE IN CONSUMER SCIENCE IN FOOD
MANAGEMENT**

This is to certify that Bhaba Dorothy Simelane is a registered student at this University. She has completed her course work towards her Masters Degree in Consumer Science and now busy with her research article entitled: The acceptability and use of convenience foods by black working women employed by government in Mpumalanga.

Her research proposal met all the requirements in the department of Consumer Science and also went through the University Ethics committee.

The University therefore requests all stakeholders to give her the necessary support and assistance in the administering of questionnaires for the survey.

Thanking you in anticipation

Prof. HM De Klerk
Head: Department of Consumer Science

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The acceptability and use of convenience foods

PLEASE NOTE

- You are not required to identify yourself and your response can not lead to your identification.
- Apart from taking up some of your time, answering this questionnaire presents no risk whatsoever.
- Feel free to seek any clarification and ask any question regarding this project from the researcher. (Cell: 082-683-1211).
- All responses will be treated in strict confidentiality and will be used for academic research purposes only.
- Your individual opinion is highly valued; therefore, do not confer with others during the completion of the questionnaire.

Thank you very much for your participation and assistance.

The questionnaire should take you not more than about 15 minutes to complete.

Please note that there are no right or wrong answers; a quick response is generally the most useful.

Please respond to the questions by drawing a circle around an appropriate number in a shaded box or by writing your answer in the shaded space provided.

PLEASE ANSWER ALL THE QUESTIONS

Researcher: BD Simelane

Department of Consumer Science – University of Pretoria

QUESTIONNAIRE: THE ACCEPTABILITY AND USE OF CONVENIENCE FOODS

Respondent

V1 1

Please answer each question by drawing a circle around an appropriate number in a shaded box or by writing your answer in the shaded space provided

SECTION A: DEMOGRAPHIC INFORMATION

1. Which **region** in Mpumalanga do you come from?

Nkangala	1
Gert Sibande	2
Ehlanzeni	3
Other (specify):	

V2 5

2. What **Department** are you **employed** in?
(Mark **one** option only)

Education	1
Health & Social Services	2
Culture, Sports & Recreation	3
Finance	4
Safety & Security	5
Agriculture & Land Administration	6
Public Works	7
Roads & Transport	8
Local Government & Housing	9
Economic Development & Planning	10
Office of the Premier	11

V3 6

3. What is your **highest** educational qualification?
(Mark **one** option only)

Certificate	1
Diploma	2
Degree	3
Honours degree	4
Master's degree and above	5

V4 8

4. What is your **age**?

--

V5 9



5. What is your **present** position?

Deputy Director	1
Assistant Director	2
Chief Education Specialist	3
Deputy Chief Educational Specialist	4

V6 11

6. What is your income salary level?

Level 9 (+/- R162 765 p.a.)	1
Level 10 (+/- R174 981 p.a.)	2
Level 11 (+/- R204 135 p.a.)	3
Level 12 (+/- R245 700 p.a.)	4

V7 12

7. How much **money** do you have **available** for **purchasing food** per month?

R0 to R500	1
R501 to R1000	2
R1001 to R1500	3
R1501 to R2000	4
More than R2000	5

V8 13

8. What is your **marital status**?
(Mark **one** option only)

Married and living with children in the household	1
Single and living with children in he household	2
Married with no children in the household	3
Single with no children in the household (living alone)	4
Divorced / widowed living with others	5
Divorced / widowed living alone	6

V9 14

9. How **many children** do you have in **your household**?

--

V10 15

10. What is the **age** in years of the **oldest child** staying with you in your household?

--

V11 17

11. What is the **age** in years of the **youngest child** staying with you in your household?

--

V12 20

12. How **many** people, on average, do you **usually cook for** in your household?

V13 23

13. How much **time**, on average, do you spend on **food preparation per main meal** from **Monday to Friday**?

0 to 30 minutes	1
31 to 60 minutes	2
61 to 90 minutes	3
91 to 120 minutes	4
More than 120 minutes	5

V14 25

14. How much **time**, on average, do you spend on **food preparation per main meal** during the **weekend**?

0 to 30 minutes	1
31 to 60 minutes	2
61 to 90 minutes	3
91 to 120 minutes	4
More than 120 minutes	5

V15 26

15. How much **time**, on average, do you spend on **food preparation** when preparing meals for **guests**?

0 to 30 minutes	1
31 to 60 minutes	2
61 to 90 minutes	3
91 to 120 minutes	4
More than 120 minutes	5

V16 27

16. Which equipment/appliances do you use **most** when preparing meals? (You **may indicate more than one** answer)

Microwave oven	1
Electrical stove	2
Coal stove	3
Gas stove	4
Pressure cooker	5
Slow-cooker	6
Primus-stove	7
An open fire	8

V17 28

V18 29

V19 30

V20 31

V21 32

V22 33

V23 34

V24 35

SECTION B:

continues on the next page

SECTION B: FREQUENCY OF USE OF CONVENIENCE FOODS

17. Please indicate your frequency of consumption/use for each of the convenience food items listed below using the scale:

- 1 = Never or less than once a week (NI)
 2 = 1 to 2 times a week (1w)
 3 = 3 to 4 times a week (3w)
 4 = 5 to 6 times a week (5w)
 5 = Every day (Ed)

Category A: Fully prepared ready to eat convenience foods, consumed as purchased requiring no prior preparation

No	Food Items	Ni	1w	3w	5w	Ed		
1	Fried / Grilled / Roasted chicken, beef, mutton, pork	1	2	3	4	5	V25	<input type="text"/> 36
2	Fried / Grilled fish	1	2	3	4	5	V26	<input type="text"/> 37
3	Fried potato chips	1	2	3	4	5	V27	<input type="text"/> 38
4	Fully prepared take away meals (e.g. curry / stew (chicken/beef) and rice / pap / samp	1	2	3	4	5	V28	<input type="text"/> 39
5	Fully prepared hamburgers (e.g. chicken; fish; beef; vegetable; cheese hamburgers)	1	2	3	4	5	V29	<input type="text"/> 40
6	Fully prepared vegetable dishes	1	2	3	4	5	V30	<input type="text"/> 41
7	Cereal dishes (e.g. pap, rice, samp, maize rice, etcetera)	1	2	3	4	5	V31	<input type="text"/> 42
8	Fully prepared pies	1	2	3	4	5	V32	<input type="text"/> 43
9	Fully prepared refrigerated salads	1	2	3	4	5	V33	<input type="text"/> 44
10	Baked products i.e. bread, bread rolls, doughnuts, sandwiches etcetera	1	2	3	4	5	V34	<input type="text"/> 45

Category B: Fully prepared ready to eat convenience foods requiring only mild heating before consumption

No	Food Items	Ni	1w	3w	5w	Ed		
11	Smoked meat dishes (e.g. chicken, ribs, beef, etcetera.)	1	2	3	4	5	V35	<input type="text"/> 46
12	Tinned meat dishes (e.g. meat balls, spaghetti with mince, corned beef, etcetera.)	1	2	3	4	5	V36	<input type="text"/> 47
13	Tinned vegetable dishes (e.g. peas, baked beans etcetera.)	1	2	3	4	5	V37	<input type="text"/> 48
14	Fully prepared vegetable dishes	1	2	3	4	5	V38	<input type="text"/> 49
15	Tinned fish	1	2	3	4	5	V39	<input type="text"/> 50
16	Stews (meat stews)	1	2	3	4	5	V40	<input type="text"/> 51
17	Prepared green leafy vegetables	1	2	3	4	5	V41	<input type="text"/> 52
18	Refrigerated ready to eat meals	1	2	3	4	5	V42	<input type="text"/> 53
19	Refrigerated dips/dressings/sauces	1	2	3	4	5	V43	<input type="text"/> 54
20	Pizza bases	1	2	3	4	5	V44	<input type="text"/> 55

Category C: continues on the next page

Category C: Partially or fully prepared convenience foods that need additional ingredients e.g. milk or hot/boiling water or salad dressing, which after mixing or cooking are ready to eat

Please use the scale:

1 = Never or less than once a week (NI)
 2 = 1 to 2 times a week (1w)
 3 = 3 to 4 times a week (3w)
 4 = 5 to 6 times a week (5w)
 5 = Every day (Ed)

No	Food Item	Ni	1w	3w	5w	Ed		
21	Breakfast cereals (corn flakes, rice crispies etcetera)	1	2	3	4	5	V45	<input type="text"/> 56
22	Vegetable Salad ingredients	1	2	3	4	5	V46	<input type="text"/> 57
23	Instant sauces	1	2	3	4	5	V47	<input type="text"/> 58
24	Soup (Instant)	1	2	3	4	5	V48	<input type="text"/> 59
25	Two minute noodles	1	2	3	4	5	V49	<input type="text"/> 60
26	Cake mixes	1	2	3	4	5	V50	<input type="text"/> 61
27	Pasta with flavorings (to which minced meat/tuna or chicken have to be added)	1	2	3	4	5	V51	<input type="text"/> 62
28	Pre-cooked meat/poultry	1	2	3	4	5	V52	<input type="text"/> 63
29	Stir fries	1	2	3	4	5	V53	<input type="text"/> 64
30	Dessert mixes (e.g. instant puddings)	1	2	3	4	5	V54	<input type="text"/> 65

Category D: Partially prepared ready to cook, bake or fry convenience foods that have been minimally prepared for cooking but still require full cooking of some or all of their components

No	Food Items	Ni	1w	3w	5w	Ed		
31	Pre-cut frozen vegetables	1	2	3	4	5	V55	<input type="text"/> 66
32	Frozen hamburgers	1	2	3	4	5	V56	<input type="text"/> 67
33	Crumbed frozen fish/sea foods	1	2	3	4	5	V57	<input type="text"/> 68
34	Crumbed frozen or refrigerated meat portions	1	2	3	4	5	V58	<input type="text"/> 69
35	Frozen Pies	1	2	3	4	5	V59	<input type="text"/> 70
36	Frozen Pizzas	1	2	3	4	5	V60	<input type="text"/> 71
37	Frozen bakery products	1	2	3	4	5	V61	<input type="text"/> 72
38	Marinated meat dishes (Kebabs, ribs, chicken flatties etcetera)	1	2	3	4	5	V62	<input type="text"/> 73
39	Frozen potato chips	1	2	3	4	5	V63	<input type="text"/> 74
40	Cleaned/peeled ready to cook vegetable items	1	2	3	4	5	V64	<input type="text"/> 75

SECTION C: continues on the next page

SECTIONC: SENSORY ATTRIBUTES THAT CONTRIBUTE TO THE USE AND ACCEPTABILITY OF THE CONVENIENCE FOOD CATEGORIES

18. How important are the sensory attributes *APPEARANCE*, *TASTE*, *TEXTURE*, *SMELL* and *FLAVOUR* in your choice, use and acceptability of convenience foods?

Importance scale:

- 1 = *Of no importance* (*no*)
2 = *Of little importance* (*li*)
3 = *Important* (*lm*)
4 = *Very important* (*vi*)

Category A: Fully prepared ready to eat convenience foods, consumed as purchased requiring no prior preparation

No	Food Items	Sensory attributes	Importance						
			no	li	lm	vi			
1	Fried / Grilled / Roasted Chicken; beef; mutton; pork	Appearance	1	2	3	4	V65		76
		Taste	1	2	3	4	V66		77
		Texture	1	2	3	4	V67		78
		Smell	1	2	3	4	V68		79
		Flavour	1	2	3	4	V69		80
2	Fried / Grilled fish	Appearance	1	2	3	4	V70		81
		Taste	1	2	3	4	V71		82
		Texture	1	2	3	4	V72		83
		Smell	1	2	3	4	V73		84
		Flavour	1	2	3	4	V74		85
3	Fried potato chips	Appearance	1	2	3	4	V75		86
		Taste	1	2	3	4	V76		87
		Texture	1	2	3	4	V77		88
		Smell	1	2	3	4	V78		89
		Flavour	1	2	3	4	V79		90
4	Fully prepared take away meals (e.g. curry / stew (chicken / beef etcetera) and rice / pap / samp	Appearance	1	2	3	4	V80		91
		Taste	1	2	3	4	V81		92
		Texture	1	2	3	4	V82		93
		Smell	1	2	3	4	V83		94
		Flavour	1	2	3	4	V84		95
5	Fully prepared hamburgers (chicken; fish; beef; vegetables; cheese)	Appearance	1	2	3	4	V85		96
		Taste	1	2	3	4	V86		97
		Texture	1	2	3	4	V87		98
		Smell	1	2	3	4	V88		99
		Flavour	1	2	3	4	V89		100

Category A: (cont.)

Fully prepared ready to eat convenience foods, consumed as purchased requiring no prior preparation

Importance scale:

- 1 = Of *no* importance (no)
2 = Of *little* importance (li)
3 = *Important* (Im)
4 = *Very important* (Vi)

No	Food Items	Sensory attributes	Importance					
			no	li	Im	Vi		
6	Fully prepared vegetable dishes	Appearance	1	2	3	4	V90	101
		Taste	1	2	3	4	V91	102
		Texture	1	2	3	4	V92	103
		Smell	1	2	3	4	V93	104
		Flavour	1	2	3	4	V94	105
7	Cereal dishes (pap, rice, samp, maize rice)	Appearance	1	2	3	4	V95	106
		Taste	1	2	3	4	V96	107
		Texture	1	2	3	4	V97	108
		Smell	1	2	3	4	V98	109
		Flavour	1	2	3	4	V99	110
8	Fully prepared pies	Appearance	1	2	3	4	V100	111
		Taste	1	2	3	4	V101	112
		Texture	1	2	3	4	V102	113
		Smell	1	2	3	4	V103	114
		Flavour	1	2	3	4	V104	115
9	Fully prepared refrigerated salads	Appearance	1	2	3	4	V105	116
		Taste	1	2	3	4	V106	117
		Texture	1	2	3	4	V107	118
		Smell	1	2	3	4	V108	119
		Flavour	1	2	3	4	V109	120
10	Baked products i.e. bread, bread rolls, doughnuts, sandwiches	Appearance	1	2	3	4	V110	121
		Taste	1	2	3	4	V111	122
		Texture	1	2	3	4	V112	123
		Smell	1	2	3	4	V113	124
		Flavour	1	2	3	4	V114	125

Category B:

continues on the next page

Category B: Fully prepared ready to eat convenience foods requiring only mild heating before consumption

Importance scale:

- 1 = Of *no* importance (no)
2 = Of *little* importance (li)
3 = *Important* (Im)
4 = *Very important* (Vi)

No	Food Items	Sensory attributes	Importance						
			no	li	Im	Vi			
11	Smoked meat dishes (chicken, ribs, beef, etcetera)	Appearance	1	2	3	4	V115		126
		Taste	1	2	3	4	V116		127
		Texture	1	2	3	4	V117		128
		Smell	1	2	3	4	V118		129
		Flavour	1	2	3	4	V119		130
12	Tinned meat dishes (meat balls, spaghetti with mince, corned beef, etcetera)	Appearance	1	2	3	4	V120		131
		Taste	1	2	3	4	V121		132
		Texture	1	2	3	4	V122		133
		Smell	1	2	3	4	V123		134
		Flavour	1	2	3	4	V124		135
13	Tinned vegetable dishes (peas, baked beans, etcetera)	Appearance	1	2	3	4	V125		136
		Taste	1	2	3	4	V126		137
		Texture	1	2	3	4	V127		138
		Smell	1	2	3	4	V128		139
		Flavour	1	2	3	4	V129		140
14	Fully prepared vegetable dishes	Appearance	1	2	3	4	V130		141
		Taste	1	2	3	4	V131		142
		Texture	1	2	3	4	V132		143
		Smell	1	2	3	4	V133		144
		Flavour	1	2	3	4	V134		145
15	Tinned fish	Appearance	1	2	3	4	V135		146
		Taste	1	2	3	4	V136		147
		Texture	1	2	3	4	V137		148
		Smell	1	2	3	4	V138		149
		Flavour	1	2	3	4	V139		150
16	Stews (meat stews)	Appearance	1	2	3	4	V140		151
		Taste	1	2	3	4	V141		152
		Texture	1	2	3	4	V142		153
		Smell	1	2	3	4	V143		154
		Flavour	1	2	3	4	V144		155
17	Prepared green leafy vegetables	Appearance	1	2	3	4	V145		156
		Taste	1	2	3	4	V146		157
		Texture	1	2	3	4	V147		158
		Smell	1	2	3	4	V148		159
		Flavour	1	2	3	4	V149		160

Category B (cont.): Fully prepared ready to eat convenience foods requiring only mild heating before consumption

Importance scale:

- 1 = Of **no** importance (no)
 2 = Of **little** importance (li)
 3 = **Important** (Im)
 4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance						
			no	li	Im	Vi			
18	Refrigerated ready to eat meals	Appearance	1	2	3	4	V150	<input type="checkbox"/>	161
		Taste	1	2	3	4	V151	<input type="checkbox"/>	162
		Texture	1	2	3	4	V152	<input type="checkbox"/>	163
		Smell	1	2	3	4	V153	<input type="checkbox"/>	164
		Flavour	1	2	3	4	V154	<input type="checkbox"/>	165
19	Refrigerated dips/dressings/sauces	Appearance	1	2	3	4	V155	<input type="checkbox"/>	166
		Taste	1	2	3	4	V156	<input type="checkbox"/>	167
		Texture	1	2	3	4	V157	<input type="checkbox"/>	168
		Smell	1	2	3	4	V158	<input type="checkbox"/>	169
		Flavour	1	2	3	4	V159	<input type="checkbox"/>	170
20	Pizza bases	Appearance	1	2	3	4	V160	<input type="checkbox"/>	171
		Taste	1	2	3	4	V161	<input type="checkbox"/>	172
		Texture	1	2	3	4	V162	<input type="checkbox"/>	173
		Smell	1	2	3	4	V163	<input type="checkbox"/>	174
		Flavour	1	2	3	4	V164	<input type="checkbox"/>	175

Category C: *continues on the next page*

Category C: Partially or fully prepared convenience foods that need additional ingredients e.g. milk or hot/boiling water or salad dressing, which after mixing or cooking are ready to eat

Importance scale:

- 1 = Of *no* importance (no)
2 = Of *little* importance (li)
3 = *Important* (Im)
4 = *Very important* (Vi)

No	Food Items	Sensory attributes	Importance						
			no	li	Im	Vi			
21	Breakfast cereals (corn flakes, rice crispies, etcetera)	Appearance	1	2	3	4	V165		176
		Taste	1	2	3	4	V166		177
		Texture	1	2	3	4	V167		178
		Smell	1	2	3	4	V168		179
		Flavour	1	2	3	4	V169		180
22	Vegetable salad ingredients	Appearance	1	2	3	4	V170		181
		Taste	1	2	3	4	V171		182
		Texture	1	2	3	4	V172		183
		Smell	1	2	3	4	V173		184
		Flavour	1	2	3	4	V174		185
23	Instant sauces	Appearance	1	2	3	4	V175		186
		Taste	1	2	3	4	V176		187
		Texture	1	2	3	4	V177		188
		Smell	1	2	3	4	V178		189
		Flavour	1	2	3	4	V179		190
24	Soup (instant)	Appearance	1	2	3	4	V180		191
		Taste	1	2	3	4	V181		192
		Texture	1	2	3	4	V182		193
		Smell	1	2	3	4	V183		194
		Flavour	1	2	3	4	V184		195
25	Two minute noodles	Appearance	1	2	3	4	V185		196
		Taste	1	2	3	4	V186		197
		Texture	1	2	3	4	V187		198
		Smell	1	2	3	4	V188		199
		Flavour	1	2	3	4	V189		200
26	Cake mixes	Appearance	1	2	3	4	V190		201
		Taste	1	2	3	4	V191		202
		Texture	1	2	3	4	V192		203
		Smell	1	2	3	4	V193		204
		Flavour	1	2	3	4	V194		205
27	Pasta with flavourings (to which minced meat/tuna or chicken have to be added)	Appearance	1	2	3	4	V195		206
		Taste	1	2	3	4	V196		207
		Texture	1	2	3	4	V197		208
		Smell	1	2	3	4	V198		209
		Flavour	1	2	3	4	V199		210

Category C (cont.): Partially or fully prepared convenience foods that need additional ingredients e.g. milk or hot/boiling water or salad dressing, which after mixing or cooking are ready to eat

Importance scale:

- 1 = Of *no* importance (no)
2 = Of *little* importance (li)
3 = **Important** (Im)
4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance					
			no	li	Im	Vi		
28	Pre-cooked meat/poultry	Appearance	1	2	3	4	V200	211
		Taste	1	2	3	4	V201	212
		Texture	1	2	3	4	V202	213
		Smell	1	2	3	4	V203	214
		Flavour	1	2	3	4	V204	215
29	Stir fries	Appearance	1	2	3	4	V205	216
		Taste	1	2	3	4	V206	217
		Texture	1	2	3	4	V207	218
		Smell	1	2	3	4	V208	219
		Flavour	1	2	3	4	V209	220
30	Dessert mixes (e.g. instant puddings)	Appearance	1	2	3	4	V210	221
		Taste	1	2	3	4	V211	222
		Texture	1	2	3	4	V212	223
		Smell	1	2	3	4	V213	224
		Flavour	1	2	3	4	V214	225

Category D: *continues on the next page*

Category D: Partially prepared ready to cook, bake or fry convenience foods that have been minimally prepared for cooking but still require full cooking of some or all of their components

Importance scale:

- 1 = Of **no** importance (no)
2 = Of **little** importance (li)
3 = **Important** (Im)
4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance						
			no	li	Im	Vi			
31	Pre-cut frozen vegetables	Appearance	1	2	3	4	V215		226
		Taste	1	2	3	4	V216		227
		Texture	1	2	3	4	V217		228
		Smell	1	2	3	4	V218		229
		Flavour	1	2	3	4	V219		230
32	Frozen hamburgers	Appearance	1	2	3	4	V220		231
		Taste	1	2	3	4	V221		232
		Texture	1	2	3	4	V222		233
		Smell	1	2	3	4	V223		234
		Flavour	1	2	3	4	V224		235
33	Crumbed frozen fish/sea foods	Appearance	1	2	3	4	V225		236
		Taste	1	2	3	4	V226		237
		Texture	1	2	3	4	V227		238
		Smell	1	2	3	4	V228		239
		Flavour	1	2	3	4	V229		240
34	Crumbed frozen or refrigerated meat portions	Appearance	1	2	3	4	V230		241
		Taste	1	2	3	4	V231		242
		Texture	1	2	3	4	V232		243
		Smell	1	2	3	4	V233		244
		Flavour	1	2	3	4	V234		245
35	Frozen pies	Appearance	1	2	3	4	V235		246
		Taste	1	2	3	4	V236		247
		Texture	1	2	3	4	V237		248
		Smell	1	2	3	4	V238		249
		Flavour	1	2	3	4	V239		250
36	Frozen Pizzas	Appearance	1	2	3	4	V240		251
		Taste	1	2	3	4	V241		252
		Texture	1	2	3	4	V242		253
		Smell	1	2	3	4	V243		254
		Flavour	1	2	3	4	V244		255
37	Frozen bakery products	Appearance	1	2	3	4	V245		256
		Taste	1	2	3	4	V246		257
		Texture	1	2	3	4	V247		258
		Smell	1	2	3	4	V248		259
		Flavour	1	2	3	4	V249		260

Category D (cont.): Partially prepared ready to cook, bake or fry convenience foods that have been minimally prepared for cooking but still require full cooking of some or all of their components

Importance scale:

- 1 = Of *no* importance (no)
 2 = Of *little* importance (li)
 3 = **Important** (Im)
 4 = **Very important** (Vi)

No	Food Items	Sensory attributes	Importance					
			no	li	Im	Vi		
38	Marinated meat dishes (Kebabs, ribs, chicken flatties etcetera)	Appearance	1	2	3	4	V250	261
		Taste	1	2	3	4	V251	262
		Texture	1	2	3	4	V252	263
		Smell	1	2	3	4	V253	264
		Flavour	1	2	3	4	V254	265
39	Frozen potato chips	Appearance	1	2	3	4	V255	266
		Taste	1	2	3	4	V256	267
		Texture	1	2	3	4	V257	268
		Smell	1	2	3	4	V258	269
		Flavour	1	2	3	4	V259	270
40	Clean/peeled ready to cook vegetable items	Appearance	1	2	3	4	V260	
		Taste	1	2	3	4	V261	
		Texture	1	2	3	4	V262	
		Smell	1	2	3	4	V263	
		Flavour	1	2	3	4	V264	

SECTION D:

continues on the next page

SECTION D: **THE INFLUENCE OF RESOURCES IN THE USE OF CONVENIENCE FOODS**

19. Which of the following is a **reason** for your use of convenience foods? (You **may indicate more than one** answer)

No	Reason	Yes	No		
1	Convenience foods are readily available in your area	1	2	V265	<input type="checkbox"/> 276
2	The price of convenience foods is affordable to you	1	2	V266	<input type="checkbox"/> 277
3	You have enough storage space for convenience foods	1	2	V267	<input type="checkbox"/> 278
4	You have equipment and appliances which enable you to prepare convenience foods	1	2	V268	<input type="checkbox"/> 279
5	You consider yourself knowledgeable and skilled in convenience food preparation	1	2	V269	<input type="checkbox"/> 280
6	You lack knowledge and skills in preparing food from scratch using raw ingredients	1	2	V270	<input type="checkbox"/> 281
7	Other (specify):			V271	<input type="checkbox"/> <input type="checkbox"/> 282

SECTION E: **SOCIAL ENVIRONMENT AND THE USE OF CONVENIENCE FOODS**

20. Which of the following have an influence on your acceptance and use of convenience foods? (You **may indicate more than one** answer)

No	Social environment	Yes	No		
1	Your busy/hurried lifestyle	1	2	V272	<input type="checkbox"/> 284
2	The convenience of convenience foods	1	2	V273	<input type="checkbox"/> 285
3	You believe, you get value for your money in your purchase and use of convenience foods	1	2	V274	<input type="checkbox"/> 286
4	You believe, you save time through the use of convenience foods in your meal preparation	1	2	V275	<input type="checkbox"/> 287
5	You lack time to prepare food from scratch, using raw ingredients	1	2	V276	<input type="checkbox"/> 288
6	It is easy to access, prepare and serve convenience foods	1	2	V277	<input type="checkbox"/> 289
7	Other (specify):			V278	<input type="checkbox"/> <input type="checkbox"/> 290

SECTION F: *continues on the next page*

SECTION F: OCCASION / SITUATION FOR ACCEPTANCE AND USE OF CONVENIENCE FOODS

21. On which of the following occasions/situations do you accept and use convenience foods? (You may indicate more than one answer)

No	Occasion/Situation	Yes	No
1	During week days	1	2
2	During weekends	1	2
3	When entertaining guests	1	2
4	During breakfast	1	2
5	During lunch	1	2
6	During supper	1	2
7	Other (specify):		

V279	<input type="checkbox"/>	292
V280	<input type="checkbox"/>	293
V281	<input type="checkbox"/>	294
V282	<input type="checkbox"/>	295
V283	<input type="checkbox"/>	296
V284	<input type="checkbox"/>	297
V285	<input type="checkbox"/>	<input type="checkbox"/>

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SECTION G: PLACES WHERE CONVENIENCE FOODS ARE BOUGHT

22. Where do you buy convenience foods? (You may indicate more than one answer)

No	Purchase convenience foods from	Yes	No
1	Pick 'n Pay	1	2
2	Shoprite Checkers	1	2
3	Spar	1	2
4	Kwik Spaar	1	2
5	Woolworths	1	2
6	OK	1	2
7	Street vendors	1	2
8	Spaza shops	1	2
9	Other (specify):		

V286	<input type="checkbox"/>	300
V287	<input type="checkbox"/>	301
V288	<input type="checkbox"/>	302
V289	<input type="checkbox"/>	303
V290	<input type="checkbox"/>	304
V291	<input type="checkbox"/>	305
V292	<input type="checkbox"/>	306
V293	<input type="checkbox"/>	307
V294	<input type="checkbox"/>	<input type="checkbox"/>

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Thank you for your time and your co-operation in filling out this Questionnaire