The impact nutritional information has on customers’ behaviours towards their food choices in restaurants.

Jenna Carra Musiker, 
Faculty of Management, 
School of Tourism and Hospitality, 
University of Johannesburg, 
Johannesburg, Gauteng, South Africa. 
Email: jennamusiker@yahoo.com

Dr. Hema Kesa 
Faculty of Management, 
School of Tourism and Hospitality, 
University of Johannesburg, 
Johannesburg, Gauteng, South Africa. 
Email: hemak@uj.ac.za

Abstract

In South Africa weight gain and health problems are on a sharp uphill rise. Very few restaurants offer nutritional information or pictures. This study is of importance as it aims at highlighting the demand for this. It investigated customers’ behaviours and attitudes towards the foods they wish to consume. Two Johannesburg restaurants were selected to uncover the reasons as to why people choose specific meals, and how if any the addition of nutritional information, health icons and appealing pictures made a difference to their ordering choices. Furthermore it looked at the connection this had to restaurant sales, and the general population of customers who ate at these restaurants. This determined the needs and demands for nutritional information within restaurants. Additional customer feedback, personal views and opinions from the restaurants were questioned to get an overview of what consumers now days tend to look at when dining out.
1. Introduction

Over the last decade nutritional trends have altered dramatically and have led to more health concerns and a need to live healthier lifestyles. Nutrition is vital for existence and gives people the nourishment that they need for growth and development. According to (Swart, Sanders & McLachlan, 2008:129-148) the overall nutritional status of South Africa’s population has not improved over the last fourteen years. The past several decades have seen an increasing prevalence of nutrition related conditions such as obesity; consequently, there has been an on growing focus on consumer nutritional education (Nestle & Jacobson, 2000:U.S. Food and Drug Administration, 2004). It is of great importance that restaurateurs begin to include nutritional information as well as more appealing visual food pictures, and health icons, aiding in the health aspects and obesity awareness as well as giving people the nutrition they require. The more people eat out, the lower their quality of diet becomes & the higher the impact on their health (Morrison; 2011:10)

1.1. Background of the Study

Customers eat with their eyes, and that is why food must be desirable, and impress both the eyes and the palate (Magoulas, 2009). The look and presentation of foods affect our tastes, moods and inner comfort levels, this is why restaurant owners need to stimulate taste by creating a meal that tastes great, is healthy and looks amazing. “The menu is the number one tool, and is the purest form of a restaurants strategic marketing plan”, (McCall and Lynn, 2008:439-445). Menus drive the process for diners to enter restaurants; it serves as a first impression and can tell a lot about the outlet. Menu design is directly linked to and influences how customers perceive things. The placement of menu items, graphics and descriptions tells and sends messages to the customers about what they should order (Panitz, 2000:81-87). They are intended to promote a perception of value to customers, and helps give more direction to what to choose (McCall and Lynn, 2008:439-445). There is a definite need for restaurants to find better ways of showing information, but at the same time they must avoid overloads and visual clutters. For these reasons they say including nutritional information and pictures on restaurant menus and menu boards or table cards would be more beneficial (Thomas Jr. and Mills, 2006:6-22).

In today’s restaurants, nutritional information is rarely offered, but there is demand as more people are aware of healthier options; people are more conscious about what they choose to eat and this leads to a potential impact of enabling people to be more knowledgeable and health conscious about what they consume

“Recently significant attention has been paid to the epidemic of obesity and other health issues that relate to foods people consume” as stated by (Jones, 2009:344-363). Not enough is known about this information on menus in South Africa, so further insight into how health
icons, pictures and nutritional information could influence customers’ choices will be investigated in this study by the use of randomized samples. The spotlight focuses on the fact that more people eat out away from home and this impacts their health and weights (Jones, 2009:344-363), and to help determine what could be done to encourage healthier food choices and intakes at restaurants (Jones, 2009:344-363). If the placements of information and icons would make a difference, this study explored peoples’ attitudes on these factors to see if they do in fact influence customers’ behaviours towards their meal decisions.

1.2. Purpose of the Study

The purpose of this study was to investigate and determine whether placing nutritional information (NI), health icons and pictures within restaurant would influence the customers’ behaviours regarding their food choices. The study evaluated the impact of menu labelling in two restaurants. Would this influence customers overall decisions in their meal choices? This was an important question, as individuals must maintain healthier lives, and receive the best nutrients that they require. Today more people are eating away from home, and in order to keep them aware of what they are consuming, restaurant owners should include labelling in their restaurants. By doing so it hoped to assist customers in making better meal choices. The question is would it actually affect their purchasing and consumption patterns?

South Africa has taken a turn in the direction of obesity and other illnesses, and it is largely attached to what individuals are eating. The researchers concern is that if there has been no visible improvement in people’s diets, are our health issues, aimed at restaurants specifically, going to become more of a problem? Another frequent question is; are restaurants serving good enough foods to the public, due to the health issues that are arising? This study investigated these research questions, as it hoped to increase customer satisfaction and improve perception potentially by having information about food items. By bringing menu labels, icons and pictures into restaurants, it is a strategy helped at reducing obesity and diet related chronic diseases, leading to individuals taking more control in their food choices and having healthier lives. It hoped to show that by incorporating these factors into restaurants, the industry can benefit from additional research knowledge on people’s attitudes towards nutritional information and icons displayed, as well as to have created more awareness of nutritional issues in general and sustain healthier lifestyles through the food choices people pick. The purpose also determined whether any changes occurred in sales, as well as if it improved customers’ behaviours that could result in repeat patronage. It showed that customers choose foods based on information and new knowledge about health, as well as on how the pictures portray the meals. This paper could help support hospitality service providers/restaurateurs with keys to understanding just how important nutritional information, health icons and visual aids could be.
1.3. Objectives of the Study

The objective of the study was to research the impact of nutritional information, health icons and pictures in restaurants, and see the effects of these on customers’ behaviours and choices. In particular the following were assessed:

- Customers’ choices and behaviours on their food decisions.
- How both the use of pictures and nutritional information on menus affected the customers’ choice in food items?
- Identified whether these changes had an impact on the purchasing patterns to increase or decrease the restaurants sales, as well as the impact on people’s knowledge and future health benefits.

The aim of this study was designed to evaluate and report these influences, and if it would assess their effectiveness. To understand nutritional information in restaurants, individuals must be nutritionally aware and educated about healthier options out there.

2. Literature Review

2.1 Obesity and Health Concerns

Dining out used to be reserved for special occasions, whereas recently it is a part of many people’s daily lives and routines. It is suggested that the way people are eating may affect the populations’ health negatively. (Bublitz, 2010) revealed “that increases in the number of restaurant meals eaten resulted in a rise in weight gain”. The more people eat out, the lower their quality of diet becomes and the higher the impact on their health (Morrison, 2011).

In South Africa 61% of adults are considered overweight or obese, according to The Star (The Star, 2012). “Excessive eating and unhealthy food choices are at the root of one of the most pressing health concerns facing the United States and much of the developing world (Bublitz, 2010). Health professionals hope to see that if this information is provided towards customers, will inform them of the nutritional contents of specific foods, as it would help them choose healthier, more nutritious meals and assist in their diets (Morrison, 2011).

By introducing nutritional information it would benefit individuals who eat out, as improving the dietary habits is an important step in improving public health (Josiam and Foster, 2009:876-891). From previous studies, we know that people underestimate the fat contents of menu items. One study has shown that the impact of state menu labelling law on population weight gain in LA, California, USA, says “there is an increase consumption of calorie dense foods outside the home” (Kuo, Jarosz, Simon & Fielding, 2009).

Results confirm that a relationship does exist and it is important to understand the link of eating out, weight gain and health concerns. South Africa is not alone in this ‘global obesity trend’. If individuals pay more attention to what restaurants offer, they have the ability to better their health and benefit positively when dining out.
2.2 Nutritional Knowledge and the lack thereof

“In an increasingly obesogenic environment, nutritional advocates and public health organisations are urging consumers to be more aware of their eating decisions, encouraging moderation and a focus on healthy eating” (Bublitz, Peracchio & Block, 2010:9-258). Media has emphasized growing obesity, and with this the public are gaining knowledge and information about food decisions, thus being more diet conscious (Bublitz, Peracchio & Block, 2010; 3).

In South Africa the demand for NI is not as high as it should be, this could be due to the fact that people are unaware of nutritional information and lack health knowledge to support their daily diets. The dilemma is that most people lack the knowledge to grasp certain facts regarding nutrition, and food consumption therefore NI is of importance, and vital for consumers to understand (Heike and Taylor, 2012:151). It is important to get as many people familiar with engaging healthy eating behaviours as it is for these exact reasons that healthy positive food decision making should be promoted.

Due to poor eating habits, consumers are showing that they are unable to choose, and do not have the discipline to allow themselves these behaviours (Thomas Jr., 2006). They are seen as having no self-control (Bublitz, 2010). Many consumers may need a combination of general nutrition education jointed with NI presented in restaurants.

Results have shown that by providing this information in restaurants it would enhance customers’ confidence levels and improve their images of the information’s source.

2.3 Nutritional Labelling/Menu Labelling

“Menu labelling is said to reduce customers’ intentions to purchase food items that are high in calories and fat, especially when there is a larger difference expected between the perceived and actual food contents” (Larson, 2009). In South Africa due to the population’s weight gain, NI has become an open topic to be incorporated within all restaurants, not only chains or franchises.

Menu labelling was introduced in attempts to help customers make informed decisions on foods and reduce the effects of obesity and weight gain. We already know that descriptive wording of menu items also affects choice and can increase sales by more than 10% (McCall and Lynn, 2008:439-445). By providing nutritional information in an easy to follow format and clearly distinctive pattern it would assist people in choosing healthier and more nutritious dishes (Morrison, 2011).

Roberto (2009) some consumers support the NI labelling and nearly half report it would influence their food choices. 64% of participants felt that restaurants should offer this information while 19% said they should not and 17% were not concerned.
Simply posting NI does not always get consumers to make healthier choices, so researchers tried colour coding. In a study by Lusk (2006) experiments were done based on three menu variations. One was controlled with no changes, one showed the caloric amounts only and the last showed calories as well as incorporated the traffic light symbols. These symbols showed what was healthier in green, less healthy in orange and least healthy in red. It incorporated price alterations also which showed what people eating out were likely and willing to spend, thus looking at the value for money and the industry sales. It was deduced that more people wanted to see the traffic light symbols as well as calories instead of just the calories as it gave them a sense of willingness to pay for what they know. The traffic light symbols are simple and do not have any numeracy demands, thus gives people insight into what not to eat. These had more of a profound effect on customers’ choices and led to choosing meals with lower calories. Even though the changes were small they were still visible, so with that in mind if everyone started to take notice of these symbols and information it would benefit them and hopefully increase their opinions on their food choices.

In a NY University survey where 821 adult responses in a low income restaurant were studied, 27% of customers who saw this labelling said it did influence their choices while 88% said they in fact consumed fewer calories in response to these labels (Morrison, 2011). This therefore shows us that when people are given the correct nutritional knowledge they can apply it to their own diets.

In the Research Synthesis (2009) “focus group research of adult restaurants customers showed that most consumers are interested in having NI available even if they would only use it occasionally” (Larson, 2009).

Nutritional labelling is not compulsory for food items within full service restaurants, this may be why certain people choose what they do when dining out, and this may also be due to a lack of nutritional information and health knowledge. “Labels can help people sometimes if they have the knowledge or motivation to use the information, which may or may not be in a format they can understand” (Rotfield, 2009:375) (Heike and Taylor, 2012). This quote suggests that this issue is full of complexities and is of importance for consumers’ education and protection. That is why introducing calorie labelling at the point of purchase is viewed as the newest public health method to decrease obesity and weight gain (Levy, 2012).

Calorie labelling may assist frequent diners in making healthier food decisions, or just help them in realising what is better for them to consume. Restaurants should therefore include specific facts informing consumers about the total calorie intake they should be allowed, whether they choose to use this information is up to them but hopefully it will make them more aware of what food items are out there (Morrison, 2011).
Getting individuals to become familiar with NI and subsequent dietary values is important. In relation to using NI to influence one’s food choices, it seems that people like simplified and easy to follow nutritional labels (Heike and Taylor, 2012). These findings were supported by other studies concerned with preferences of NI and was indicated that the more information offered was better, but other studies show that too much information resulted in poorer performance due to the ease of using this information to make food choices (Heike and Taylor, 2012).

Holdsworth M 1998 & Steenhuis I 2004 (Holdsworth, 1998) agree that “labelling healthier items within the foodservice sectors may influence behaviour, promoting healthier dieting patterns” (Vyth, 2011). If consumers have no intentions of eating healthier food items or altering their diets and intakes they will not pay attention to the use of NI and labelling, this was visible from the results which suggested that only health conscious consumers would usually take note of this information (Vyth, 2011).

Claude Fischler, sociologist with the French National Research Centre for Scientific Research (2004) stated “If you are what you eat and you don’t know what you’re eating, do you know who you are?” (Heike and Taylor, 2012).

In this study it looked at finding out what customers want to see most on menus.

2.4 Restaurant Preferences versus Customer Preferences

An important question is; are people eating out to live, or do they eat out for pleasure? Most people live in rich food environments where there is a variety of foods available so it is seen as they eat out for enjoyment (Bublitz, 2010).

“Customers expect restaurateurs to provide information on the calories, sugar, protein, fat, and carbohydrate content on menus”, (Mills and Clay, 2001:69-82); (Mohd Zahari, Din & Shariff, 2010:333 - 346). According to (Hwang and Lorenzen, 2008:270-276) providing nutritional information on restaurant menus aids the consumers in making healthier choices and they were in fact willing to pay more for food they perceived as healthier.

Emotion and moods may interrupt people’s consumption decisions, and these can vary during the day. It requires consumers to balance their emotions which is challenging for many. Positive emotions can impact on health and may make customers more focused on the NI attributes & features of food, while with an increased variety of food items, there is usually a strong direct increase of how much people eat, thus resulting in over eating. Negative emotions like stress can also lead to over eating, while for others it may lead to eating much less (Bublitz, 2010). The more knowledge people have about how their emotions play a part in their eating decisions, the more they will be able to manage their own diets (Bublitz, 2010).
Personal factors including motivation and the ability to recognise the health concerns and connections are a significant part of the consumers’ choice. Nutrition information is affected by personal factors such as “one’s ability, motivation and knowledge levels” (Heike and Taylor, 2012). These are seen as vital factors in accessing the involvement and nutrition knowledge when processing this information. They also found that “consumers may only read and process this kind of information if it applies to their personal beliefs” (Heike and Taylor, 2012). These results were consistent with previous research that showed that changes in nutritional labelling formats improved peoples abilities to process this information. This in turn helps individuals to understand the health risks involved and weigh up their food decisions. People are said to eat out more due to social and environmental factors, which is a concern for people’s health, as they eating for reasons other than hunger (Bublitz, 2010). Social factors may attract or repel individuals to eat certain food items especially when one sees another enjoying their meal. This could promote an individual’s enjoyment and alter their decisions regarding the food and experience they have all together. Socially, some families place influence on the younger ages to shape their dietary habits and mould individual taste preferences, while friends, business work environments and different occupations also a play a part in peoples eating tendencies (Bublitz, 2010). Gender “Coll, Meyer, and Stunkard; agreed that men purchase more than women. It was also identified that when men ate with other men they ate the most and when women ate with me they ate the least” (Brindal, 2010). Bublitz (2010) supports this due to evidence findings that women are more concerned with their weight status than men. “Women are more likely to use NI than men” (Larson, 2009).

If customers view the restaurant menus as healthier and more valuable they “may be willing to pay more for that increased value” (Hwang, 2008). If this occurs restaurants can attract customers successfully and gain sound revenues, therefore achieve both financial and nutrition goals (Hwang, 2008), however if food is perceived as unhealthy customers will not be willing to pay more. Hwang (2008) confirmed past studies stating that the more NI shown, the more preferred the restaurant was to customers. In his study “81% of participants said they do read NI when they shop, 93% felt that restaurants should include NI and 90% said they would make use of it” if it was placed in restaurants.

Overall we can therefore conclude that NI can benefit both customers and restaurateurs, as customers gain confidence as well as improve on how they view the restaurant (Hwang, 2008).

From the current literature review it has shown that there is a significant change in the western eating behaviours, as the purchase and consumption of restaurant foods has increased. This paper shows the Hospitality and restaurant industry efficient and effective
ways and ideas of how to incorporate NI in order to assist consumers making better life changing choices. It shows how restaurants and customers perspectives differ regarding menus and the detailed information that is viewed as important. It focused on how these factors could influence restaurant sales and overall productivity, therefore satisfying both the customers and restaurateurs for future improvement, growth and development, as well as promoting health awareness amongst the general population.

3. Methodology

3.1 Introduction

This study was intended to use both Quantitative and Qualitative approaches to assess whether or not nutritional information was a necessity within Johannesburg restaurants.

To determine and learn more about the effects and customers attitudes on nutritional information (NI) in restaurants the researcher conducted a three week study using two restaurants. Five menu items were chosen from restaurant A, and eight menu items from restaurant B, in order to answer these four questions: (sub research questions).

- Does having visually attractive pictures influence consumers food/meal choices?
- Does having NI, health icons, allergies etc, in restaurants influence consumers’ food/meal choices?
- Does having NI in restaurants increase the sales and productivity of the restaurant?
- Does the use of NI make customers more aware of their health and diets? And therefore improve their nutritional knowledge?

In the questionnaires given out, demographic questions were included, as they gave good indicators of food choice behaviours. These included; age, gender, ethnicity, highest educational qualification, how often customers ate out etc. Participants were also asked how many members of the family were dining out together at that specific time and whether or not the provision of this information would influence their food choices.

Restaurants A & B were to display additional nutritional information, health icons and pictures within their restaurants. Participants were a convenience sample as it was aimed at everyone that came and ate at these restaurants. This study was done over a period of three weeks from Sunday 9th September 2012 – Sunday 30th September 2012 to see, analyse and compare the data collected.

3.2 Research Methodology

Restaurants A and B menus contained similar dishes of breakfast and lunches, so some dishes were chosen from breakfast and others were chosen from lunch. These dishes were then represented in the form of an attractive picture in the 2nd week, and in the 3rd week nutritional information such as health icons, allergies and so forth were placed additional to the food item descriptions.
Both restaurants are middle to upper class, with a variety of customers, differing in age, gender, and racial status. Neither of these restaurants had any form of visual displays, icons or nutritional information on their menus, thus they were ideal to use in this investigation.

For the first week the restaurant menus had no changes or additions made to them, in order to see what sold the most and what did not sell as much, therefore what was less popular. From these findings, as stated above each of the restaurants chose between 4-8 menu items to modify within the second and third weeks. The dishes that were chosen for weeks 2 and 3 were displayed using attractive pictures of these meals on a separate laminated leaflet accompanied by the original menus. The 3rd and final week the addition of NI, and health icons (allergies etc), were displayed on these leaflets additional to the pictures, to see the differences from the 1st and 2nd weeks, and from this a comparison over all 3 weeks. By doing this and reviewing the patterns/changes if any, it showed the restaurant owners and managers the customers’ attitudes and behaviours behind their eating choices, and how their psychological knowledge and insight on health affects the options they choose.

All data was structured through the use of mixed methods; (qualitative) face to face interviews, document reviews, individual concealed observations and (quantitative) administering written questionnaires/surveys. These were used to generate a table of the before and after comparisons, of the differences throughout the three week study.

Research/Sample Design

Two types of sample groups were examined; purposive sampling and convenience sampling.

The Population of the study was divided into two groups:
1. A convenience sample was utilized and focused on all the customers who ate at these restaurants, as the selection process was aimed at the restaurant customers specifically and not focusing on the general public. Every customer at the restaurants was given a questionnaire, and it was up to them if they wished to fill it in.
2. A purposive sample used to choose the two restaurants. Interviews were conducted with the restaurants management personnel to ensure the questionnaires answered were reliable, relevant and informative.

Quantitative

Questionnaires were created for, and handed out to all customers at both the restaurants.

The quantitative approach (questionnaires for customers at the two restaurants) helped to understand the views, behaviours and attitudes of what foods people should choose while dining out. The distribution of questionnaires was aimed at customers who ate at these restaurants only. The questionnaire was created and used to capture the data. Permission from the restaurant managers and owners was attained, and names of participants were treated
privately and confidentially. These customers were given the surveys as the menus were handed out and they could fill them in when and if they wished. Each participant received a one page A5 back to back booklet questionnaire. This included the cover page which defined the purpose of the study. The initial sample consisted of 60 participants per restaurant and therefore a total number of 180 questionnaires from each restaurant were completed over the three week study, giving a final amount of 360 questionnaires all together.

Derived from the results of the questionnaires, completed by all the customers determined their opinions and points of views regarding NI and pictures when being incorporated in JHB restaurants and on their menus. Feedback included their dining experience and how the NI, health icons and pictures influenced their meal choices. The customers’ who were given these questionnaires constituted a “convenience sample” This allows the researcher to save money and time as the respondents are already available for the researcher to approach them. The customers who did complete the questionnaires were only found within these two restaurants, and this made the study more efficient and economical.

Qualitative

Interviews held with management personnel from both restaurants:

The qualitative approach (interviews held with management personnel) helped to understand what made these two restaurants successful, if customers’ choices would be influenced and to see in fact if their sales would positively change due to what customers select from the menus.

These were conducted in person with the restaurant managers/owners a week after the completion the three week study. Individual statements were obtained when the number of people or the timing was impractical. The interviews were recorded and transcripts were written out based on the same questionnaire format.

These interviews asked why the management saw the study as useful, how they thought it would assist their overall business as well as what they have seen, identified, and have realised about the integration of nutritional information within their restaurants.

The general ambience, food presentation and service was noted by the researcher during field work and observed from the staff and management as well. Managers from the two restaurants made up the purposive sample. The restaurant & managers were specifically selected as a result of their qualities and knowledge regarding the way they chose to incorporate NI and appealing pictures within their restaurants.

The data collected from these interviews revealed certain reasons for wanting to introduce NI within restaurants, both on a personal level, as the managers may have a desire to promote this information onto their customers, as well as on the economical side of increasing and enhancing clientele and promoting the restaurant business as a whole.
Collecting the Data

The following steps were taken for collecting the data:

Step 1. Consent was given to interview the managers and owners at the two designated restaurants.

Step 2. Details and specific information on the ways in which both these restaurants promote and sell their foods to customers, as well as their sales and productivity was covered.

Step 3. The researcher ate at both the restaurants to experience ‘their dining out concepts’. Written notes pertaining to the taste, presentation, service, price etc of the chosen dishes were identified and noted.

Step 4. Questionnaires were handed out to all customers who ate at the restaurants to get their feedback on how these factors influenced their choices and to find out if there was in fact a demand for these factors. Interviews were held with the two restaurants managers and owners, therefore one from each restaurant.

Step 5. Research from books, journals, articles and internet websites added to the information of this extensively interesting topic and was accumulated for a comprehensive literature review.

Analysing the Data

Step 1. Field notes were gathered as well as photographs were taken of the two chosen restaurants & their specific food items. Questionnaires for customers and interview write ups with owners/managers were organised.

Step 2. The information was then separated within the two restaurants which divided into specific sub questions which owners were to answer.

Step 3. Data was then assessed with each restaurant and answers were based on these questions that were asked.

Step 4. Research from the sub questions were created for a well-structured research study.

Step 5. The main concepts of each restaurants question were discussed in depth, and this data was further manipulated and broken down.

For organising and interpreting the quantitative data, Microsoft word was used to place the data from the surveys onto computer software, in order to distinguish the before and after comparisons and to plot the data on graphs. Microsoft Excel, a spreadsheet programme was used to draw up the questionnaires and the use of SPSS software which was incorporated to assist with the statistical side of the data, and thus a consultation was held with STATCON.

SPSS is a system which focuses on statistical packages. This was helpful as it analyzed data, making the coding and interpretation of results easy to understand. It incorporated the Chi-square test “which is used to explore the relationship between two categorical variables.” “It compares the observed frequencies or proportions that occur in each category, and is based
on a cross tabulation table, with the cases classified according to the categories in each variable” (Pallant; 2007:214) (Pallant, J. 2010).

The questions consisted of mainly close-ended questions and one open-ended question, where customers were able to give feedback if they wished to. Descriptive statistics were tabulated in an organised fashion so all values were formatted clearly to provide objective answers. Additional charts and graphs were drawn to identify the differences from both restaurants as well as from week to week.

Organizing and interpreting the qualitative approach and data, Microsoft Word 2007 was used to write up the questions for both restaurant interviews. These interviews with the managers/owners were recorded and transcripts were captured by the researcher and written out according to the outcomes seen over the three weeks. The interview analysis, was conducted with both restaurant owners, and was divided into several questions in order to maintain a consistent sequence for all questions asked. The results from these described how they established the way they chose to integrate the use of the NI, health icons and pictures within their restaurants. Both interviews were compared with the questionnaire results, to see if there were any differences. The researcher also performed observational research to identify any changes seen personally.

Ethical Considerations

The purpose of the study was clearly shown to all respondents before any comments and results were taken. In order to keep it private and confidential all participants were kept anonymous when filling out the questionnaires, so no names or personal identity was needed. These people were treated with respect and dignity.

All responders and the managers of the two restaurants were given a cover letter detailing out what the research entailed, and outlined what this study was set out to do. The management personnel of the two restaurants were approached by the researcher and consent to go ahead with the interviews was given. The purpose of the study was communicated to the owners/managers and this prevented unnecessary misunderstandings and errors from occurring. All who took part in the study were thanked and acknowledged by the researcher for their contribution they brought forward to the study.

This study followed all the rules and regulations of the University of Johannesburg, and the Universities letter head was displayed on all the questionnaires.

Field Work

Field work was completed by the researcher by viewing, studying and researching the menus and the backgrounds of locally privately owned restaurants. After finding the two suitable restaurants, the owners/managers were contacted by telephone calls to give consent and permission to use their restaurants as part of the study. Shortly after this, the researcher
made appointments to meet with the management personnel, speak to them personally and conduct the necessary interviews which conveyed what the study was all about. Once the approval from the managers/owners had been given, questionnaires were printed and handed out to all customers who ate at these restaurants, and results of this feedback were recorded. These questionnaires were; one for the 1st week when no changes were done, this questionnaire focused only on what customers would consider, while for weeks 2 and 3, they focused on what the customers were actually looking at ordering/choosing from the menus.

During the observations done by the researcher, notes and transcriptions were written in order to provide additional valuable data which contributed to the topic on hand. The researcher noticed that with some people the visual pictures on the leaflets for specific meals made a huge impact on customers’ intention to order those meals. Some of these people even changed their minds on what orders they wanted, showing that it altered their behaviour behind their food choices. The researcher can say that through the use of these pictures, it did in fact impose upon customers as it caught their attention.

4. Results

4.1 Quantitative Analysis-Demographics Results

Statistics are an average across both restaurants.
• 60.34% Female
• 74.5% Middle Aged (ages 25 – 54)
• 83.27% White
• 80.6% Highly educated
• 39.2% Majority ate out more than 6 times a month

It can be noted that from the feedback and high performance of females it could be a result of the venues chosen, or because females are said to be generally more nutritionally conscious of what they eat as opposed to men. The same was identified according to Larson (2009:3) study that mentioned how “women are more likely to use nutritional information (NI) than men” & according to Dubbert (1984:86) study it found the same. This needs to be taken into consideration when looking at how one answered the questionnaires.

The age groups were a representation of who was present at the exact time the study was carried out. These results were consistent with other research done, such as (Josiam; 2009:882-883) study. Race showed a continuous higher percentage of customers eating at these restaurants over all 3 weeks were white. Individuals who ate out here were highly educated and thus logically following this, they should be knowledgeable and more consciously aware of what is right and wrong to consume. This was reinforced by (Josiam; 2009:883) & (Heike & Taylor; 2012:122-123). Most individuals were seen to eat out more
than 6 times a month at both restaurants. This could be due to the high amount of working people who may drop in for a quick meal or on the go coffees and meetings.

Due to a person having a higher educational qualification and better employment positions, with that comes higher incomes and the ability to afford dining out at restaurants just like these 2 chosen, as well as affordability to take families or others out to dine with them. This was proof from (Heike & Taylor; 2012:140-142) as they support that the higher the income the more likely individuals were to use and compare NI.

In conclusion, from the statistics of demographics, that the racial group was predominantly white females. This means that different responses may arise when viewing other races, and possibly males specifically.

4.2 Findings from Questionnaires

Question 7.1: Visually attractive pictures on the menu influence my food choices.

![Bar chart for Restaurant A](chart1.png)

![Bar chart for Restaurant B](chart2.png)
From the above figures 4.1 a & b which looked at how pictures influenced customers’ food decisions, a positive change was seen from week to week, as having the actual pictures in front of customers made more of an impact on their opinions.

Table 1.1 and Table 1.2 shown below are the cross tabulations that were analysed. Table 1.1 and Table 1.2 was a cross tabulation of question 8 and 7.1 from the questionnaires. Table 1.3 and Table 1.4, was another cross tabulation that used question 8 and 7.2 from the questionnaires. Both these were tabulated with the ‘neither agree nor disagree’ option being eliminated and therefore only ‘agree’ and ‘disagree’ options were given. Table 1.1 and Table 1.2 illustrate what percentage of respondents agreed or disagreed with question 8, and what the percentage was of these respondents who chose their meal choice from either the main menu or the separate leaflet which displayed the visually attractive pictures. Table 1.3 and Table 1.4 illustrate what percentage of respondents agreed or disagreed with question 8, and what the percentage was of these respondents who chose their meal choice from either the main menu or the separate leaflet which displayed the nutritional information and health icons.

<table>
<thead>
<tr>
<th>Restaurant A</th>
<th>Q:8</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q:7.1</td>
<td>Leaflet %</td>
<td>Main Menu %</td>
<td>Total %</td>
</tr>
<tr>
<td>Agree</td>
<td>39.3</td>
<td>60.7</td>
<td>100</td>
</tr>
<tr>
<td>Disagree</td>
<td>15</td>
<td>85</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>29.2</td>
<td>70.8</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restaurant B</th>
<th>Q:8</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q:7.1</td>
<td>Leaflet %</td>
<td>Main Menu %</td>
<td>Total %</td>
</tr>
<tr>
<td>Agree</td>
<td>28.6</td>
<td>71.4</td>
<td>100</td>
</tr>
<tr>
<td>Disagree</td>
<td>13.3</td>
<td>86.7</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>23.3</td>
<td>76.7</td>
<td>100</td>
</tr>
</tbody>
</table>

From Table 1.1 and Table 1.2, data that was captured giving the Chi-square test showed a continuity correction at restaurant A of 2.259 and sig value of .133, and at restaurant B .560 & .454 respectively. This was seen as insignificant as the sig value needs to be 0.5 or smaller to be of significance. The Phi values were 3.68 and .244 which placed it in having a small to medium effect. “As from 0.10 it is viewed as a small effect, 0.30 is a medium effect and 0.50
is seen as a large effect” (Pallant, 2007:217) (Pallant, J. 2010). From this it can be further concluded that the minimum expected counts were 5.83 and 3.49 respectively, and needs to be 5 or more, so from this cross tabulation in one regard it was identified as significant and valuable but not enough proof/evidence was obtained for the general public to use this as an evident factor, and therefore overall was not valid enough for continued use.

Question 7.2: The use of health icons on menus influences my food choices.

![Figure 4.2a](image1.png)

![Figure 4.2b](image2.png)

Figure 4.2 a & b looked at how the NI influenced their choices, and a negative influential effect was seen with the inclusion of NI over the 3 weeks. It seemed to turn people off and therefore pushed them away from considering this information, as they seemed to not be aware of the caloric amounts within specific food items. More positive results such were seen
at restaurant B which are more in line with other studies by (Vyth; 2011:132) & (Roberto; 2009:5).

Table 1.3 Cross tabs of question 8 & 7.2 Restaurant A

<table>
<thead>
<tr>
<th>Q:7.2</th>
<th>Leaflet%</th>
<th>Main Menu%</th>
<th>Total%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>28.6</td>
<td>71.4</td>
<td>100</td>
</tr>
<tr>
<td>Disagree</td>
<td>17.6</td>
<td>82.4</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>22.6</td>
<td>77.4</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1.4 Cross tabs of question 8 & 7.2 Restaurant B

<table>
<thead>
<tr>
<th>Q:7.2</th>
<th>Leaflet%</th>
<th>Main Menu%</th>
<th>Total%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>16</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

Data that was captured for Table 1.3 and Table 1.4, using the Chi-square test showed a continuity correction at restaurant A was .085 and sig value of .770 and at restaurant B 1.185 and .276 respectively, this was seen as insignificant for the same reason as mentioned above. From this it can be concluded that the minimum expected count was 3.16 & 1.50 and needs to be 5 or more, so from this cross tabulation not nearly enough proof/evidence was obtained and therefore was not significant either.

People care about nutritional information, as there was a connection seen between health concerns and what people eat.

Question 7.4: I believe there is a connection between health concerns & what people consume while eating out.
This study founded similar findings to Morrison (2011:10-12) & Heike and Taylor (2012:120-121) which helped to prove that there was a connection between eating out and health concerns, shown in Figure 4.3 (question 7.4). Restaurant A, due to the lack of nutritional knowledge fewer people agreed to this which was a bad reflection on the respondents. Restaurant B most agreed and therefore we can conclude that these respondents were more knowledgeable, or perhaps restaurant A respondents were just not as interested.

Q 10.1- How important is health
From Figure 4.4 a & b, (question 10) displayed factors that had to be arranged from most important to least importance. It was seen that taste was the top priority, followed by food quality, then service, then food presentation, then health and lastly price.

**Visual aids and/or NI do not impact on restaurant sales.**

Question 7.5: I am willing to pay more for a healthier, fresher meal.
Figure 4.5 (question 7.5) depicted what percentage of people would be willing to pay more for a fresher, healthier meal. In studies by (Hwang; 2008:271) it was found that people would be willing to pay more if perceived as more valuable. Conversely, others who did not see the quality of food in these ways were not willing to pay more. The latter was not as evident here as most people at both the restaurants agreed to this, saying that they would be willing to pay more for better quality food items.

In conclusion to all the above, most people were interested and captivated by this information, as it offers reasonable insight into showing them the right directions to make better food choices. However others do not see it as a requirement at all. It definitely needs more complex research to be investigated, better statistical results and stricter health policy assistance in order to make a real impact on the public’s views and opinions regarding this topic.

4.3 Qualitative Analysis- Discussion of Interviews

The results from the interviews suggested that restaurant A would use the pictures and health promoting icons but not caloric amounts, and restaurant B would use this information to promote people’s health and nutritional knowledge.

Restaurants A and B did not feel they were the best choice of restaurant for such a study, yet both felt similar to consumers in that it is important to know and be aware of such information, but not with such a demand as one should know what they should and should not consume already.

Lastly it was seen that overall the pictures made more of an impact to both restaurants due to nutritional information not being well understood.

Therefore incorporating information on menus is vital for customers to make better choices. These findings were in line with Panitz (2002:3) & McCall (2008:440) studies as
both believed that menus should be graphically fun yet functional at the same time, as they show customers how they should perceive the restaurant and the foods they wish to order.

This can be supported by Heike & Taylors study (2012), where overall nutritional knowledge is an important factor in order for customers to make reasonable food choices & benefit their health in the future.

4.4 Comparison of interview and questionnaire results

In comparison as noted above, on average out of the sample most people thought it would influence them but over the weeks this response was seen to change as many did not know whether to agree or disagree with some of the statements. This showed a lack of nutritional knowledge and health concerns for individuals overall.

This study was purely a generalisation of what customers would choose or not choose due to what they see when dining out. To conclude further research would be a good idea and needs to be undertaken to sample a larger group over a longer time period in order to get a wider spectrum of results.

5. Conclusions and Recommendations

5.1 Conclusions

In conclusion, the methodology and processes used to bring all the relevant data to this study, made a clear understanding as to the ways the researcher went about collecting and analyzing the data.

Comparing the results of both restaurants to previous studies done, one can draw up the conclusion concerning whether Nutritional Information, health icons and pictures are actually needed within restaurants for the assistance of customers’ food choices, the improvement of their diets and future lives, as well as increasing the sales and productivity levels of restaurants. This then benefits and satisfies both customers and restaurateurs as a whole.

Consumers were seen to want to have this information available-demand (might not use it but if they choose to it’s there). Pictures were viewed as having more of an impact over Nutritional Information and there was a definite lack of nutritional knowledge, suggesting individuals are uneducated about Nutritional Information, this further leads to the possibility of scaring off consumers.

5.2 Recommendations

For this study it is recommended that further research/experiments should be done using more restaurants and having a broader variety of menu items. Increasing the sample size would be another option as well as using the same sample from start to end.

It is also recommended that longer time frames and different factors are used, such as the general public, not middle-upper class only.
Lastly restaurants can help by placing promoting nutritional facts (daily intakes etc) to guide customers to choose better food items and assist individuals to start learning about Nutritional Information.

References


Larson, N. & Story, M. (2009). Menu labeling: Does providing nutrition information at the point of purchase affect consumer behavior. *A research synthesis.healthy eating research national program.rob wood johnson foundation*,.


Lusk,J.L. Effects of 'fat tax' & calorie information on restaurant food choices. 2006, September 5.


